Defense Acquisition University

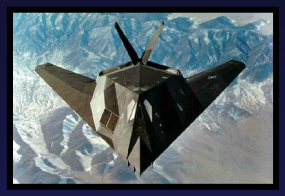
A premier corporate university serving DoD Acquisition, Technology, and Logistic

Implementing Performance Based Logistics Support Strategies

Jerry Cothran, Program Director
PBL
DAU – Capital NE

GWOT Performance

Performance of Systems engaged in OIF/OEF



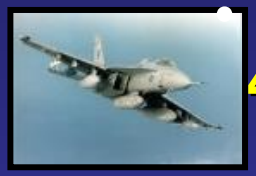
Air Force F-117 Nighthawk

Air Force Joint STARS

Navy Aegis Cruiser

Army STRYKER

Army Common Ground Station



Navy F/18 E/F Super Hornet

- Increased availability of air-based, close-in weapons systems **from 80 to 89%**
- Increased availability of F-14 targeting systems **from 73 to 90%**
- Increased engine uptime for the F-404 to **90%** while cutting maintenance time ½
- Cut helicopter Depot Mx time **from 261 to 76 days**
- Reduced wait time for F-18 supplies **from 47 days to 7 days**

Source: Lexington Institute

Performance at Optimal Cost

PBL WORKS! Even the GAO Must Admit…

- GAO PBL Report 05-966 Sep 2005
- Examined 15 PBL programs
  - USAF (C-17, F-117, JSTARS, C-130J), ALR-67 (V3),
  - Navy APUs, F/A-18 E/F, F-404 engine, T-45 engines, V-22 Engines, KC-130J
  - Army HIMARS, Javelin, TOW ITAS, Shadow TUAV

"Of the 15 programs, 10 reported that performance levels exceeded contract requirements, and 5 reported that performance levels were meeting contract requirements."

And Reduces Cost…

Samples of Navy Performance- Based Logistics Success

PBL (OEM) / Results	APU (Honeywell)		F404 (GEAE)		Displays (Rockwell-Collins)		SMS (Smiths)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Availability	65 %	94%	43 %	95%	47 %	99%	61 %	99%
Backorders	125	5	718	0	583	0	489	0
R-TAT *	162	38	116	81	55	22	177	40
$ Avoidance	N/A	$70 M	N/A	$90 M	N/A	$94M	N/A	$15M

* Repair Turnaround Time Reductions in days

Updated 11-21-05

USAF C-17 PBL Cost Savings
(in $M)

	C-17	C-5	C-17 vs. C-5
Total Cost per Flight Hr	$9,701	$23,594	(41%) 59% Less!
LOG Sust. Cost per FH Total	$2,347	$10,660	22% 78% Less!
Cost per Flight Hr per Pallet	$539	$655	82% 18% Less!
Log Sust. Cost per FH per Pallet	$130	$296	44% 56% Less!
Flight Hrs per Aircraft	$1,349	$837	161% With MORE Hours!

Similar results vs. C-141; Source: USAF AFTOC 2006

DoD has established a STRUCTURE and STRATEGY for Support

STRUCTURE

Designate a Single Point of Accountability for the Weapo System from Cradle to Grave

Total Life Cycle Systems Management

TLCSM

STRATEGY

Buy Weapon System Support As Performance Outcomes rather Than Functional Transactions

Performance Based Logistics

PBL

DOD 5000 Policy: TLCSM

The PM shall be the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment.

PM Responsibility for TLCSM

BEFORE

PM ROLE DIMINISHES

Cost, Schedule, Performance

Transitions To

LOG INFRASTRUCTURE

TODAY and into the FUTURE

PM ROLE CONTINUES

EVOLUTIONAR

Cost, Schedule, Performance AND Supportability!

UPGRADES

LOGISTICS INPUT/SERVICES

DOD 5000 Policy: PBL

"PMs shall develop and implement *performance-based logistics* strategies that optimize total system availability while minimizing cost and logistics footprint."

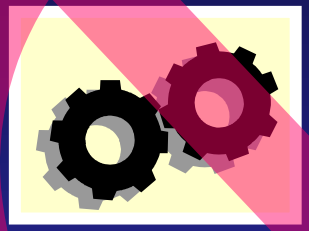
PBL Definition

Performance-Based Logistics (PBL) is the acquisition of support as an integrated, affordable, performance package designed to optimize system readiness and meet performance goals for a weapon system through long-term support arrangements with clear lines of authority and responsibility. Performance-based strategies focus on achievement of performance outcomes, not the transactional products or services that enable those outcomes.

PBL Buys Outcomes

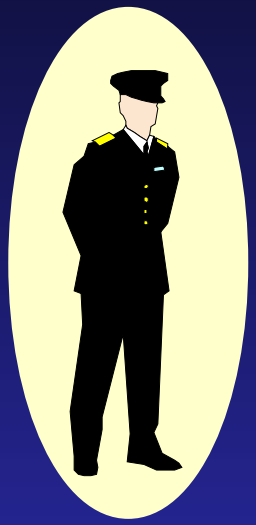
Traditional Strategy
Transactions

REPAIRS



SPARES

ENGINEERING



DoD Manager

PBL Strategy
Outcomes

Availability

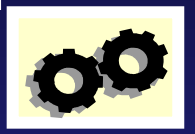
Reliability

Mission Effectiveness

...at an affordable cost

PBL Doesn't Change the Basic Elements of Support

- **At the operational level, all of our systems still require the same resources to ke them operational**
  - Spare, Repairs, Technical Support, etc.



- ***PBL doesn't CHANGE this…***
- **What it changes is the <u>way in which we acquire or purchase this support!</u>**
- **We <u>MOVE</u> the responsibility for determining the <u>"HOW"</u> (quantity, schedule, location) to a Product Support Integrator**
- **And specify <u>"WHAT"</u> level of performance we need**

PBL Implementation Status

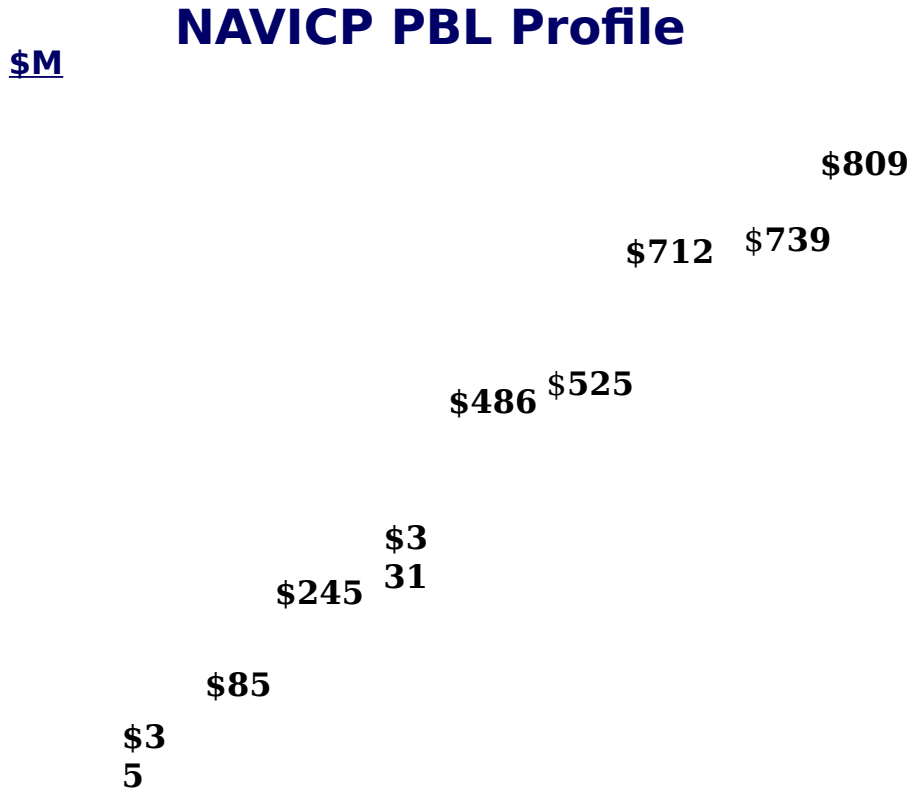
Source: OADUSD/LPP – Updated as of Jul 2006

	Total Programs	Current PBL Programs	Scheduled PBL Programs	Total PBLs Current + Scheduled
Army	60	18	28	46 (77%)
Navy	85	35	23	58 (68%)
Air Force	70	33	17	50 (71%)
DoD	215	86	68	154 (72%)

- **Includes over 170 subsystem/component PBLs**
- **Total PBLs exceeds 250 at all levels**

NAVSUP
NAVAL SUPPLY SYSTEMS COMMAND

Navy Owns Majority of Subsystem/Component PBLs



Business Scope

- *172 contracts*
  - *Mech = 96*
  - *Phil = 76*
- *51,000 line items*
  - *Mech = 26,941*
  - *Phil = 24, 279*
- *21.3% of total demand (un*
  - *Mech = 14.3%*
  - *Phil = 25.2%*

PBL Maturity Model

Scope of PBL Strategies

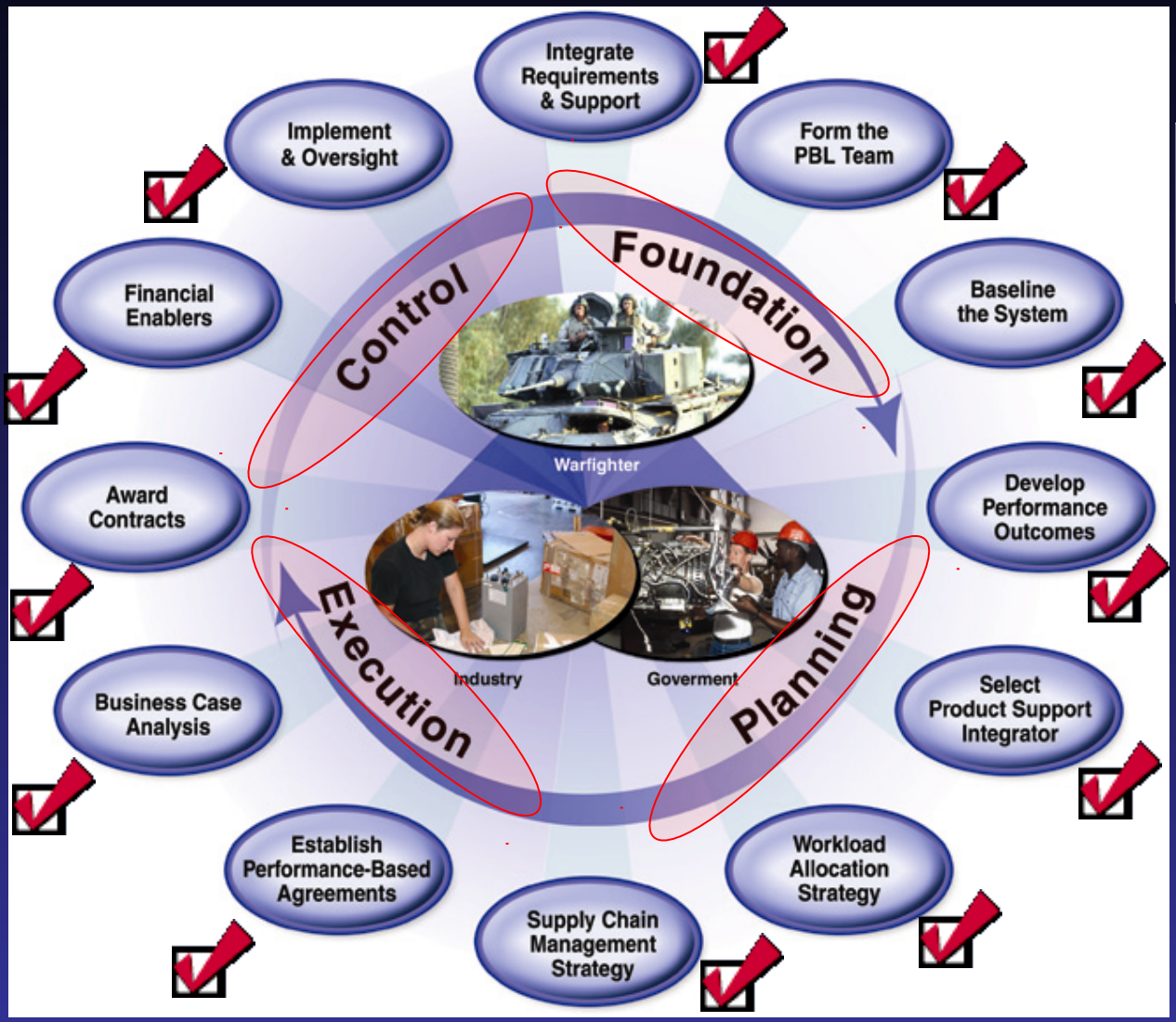
PBL Implementation Scope

Range of Opportunities

	Logistics Support Elements		
	Single	**Multiple**	**All**
System Level	Single element for an entire system	Multiple elements for entire system	All elements for entire system
Sub-System Level	Single element for a single sub-system	Multiple elements for sub-system	All elements for sub-system
Component Level	Single element for a single component	Multiple elements for a single component	All elements for a single component

There is no "one size fits all" PBL strategy

PBL Implementation Framework



12-Steps

Tailor the sequence and priority of events

1. Foundation
2. Planning
3. Execution
4. Control

PBL Implementation Framework

Integrate Requirements and Support

Integrate Requirements and Support

- What does the Warfighter require, and how will the system be operated?

What is the CONOPS?

- OPTEMPO
  - Peacetime, Surge, Contingency, Wartime
- Deployment
  - Footprint, initial support, continuing support
- Operational Mission
  - How far forward (‘last tactical mile’, contractors on the battlefield)

PBL Implementation Framework

Form the PBL Team

Establish PBL Team

Engage Key Stakeholders Early!

Customer and Program Office

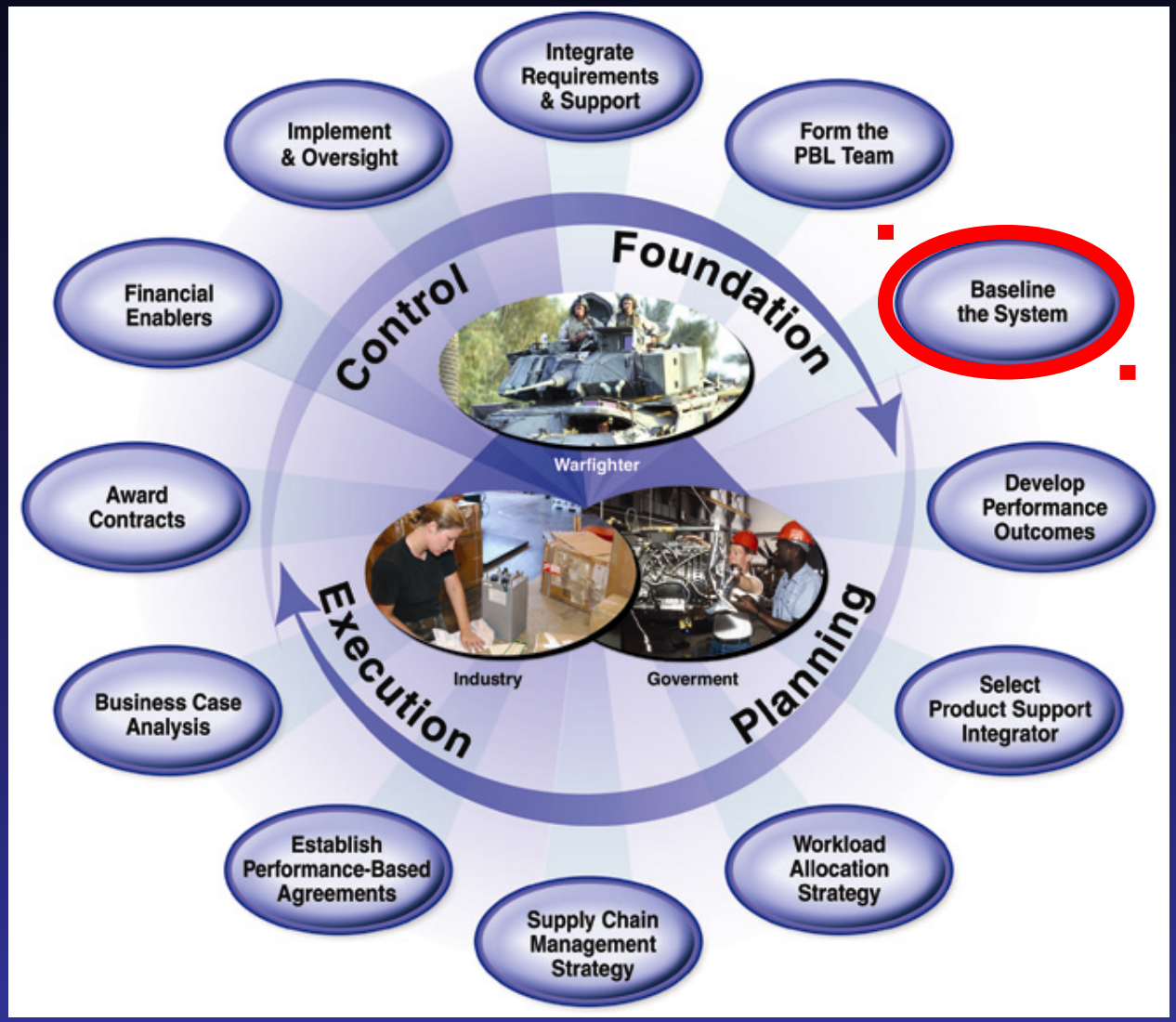
- DoD Warfighter
- Program Manager
- **FMS Customers**
- **Logistics Manager**
- **Industry Support Providers**
- **Contracting Officer**
- **Product Support Integrator**
- PBL Team
- DLA
- **Systems Engineer**
- **Inventory Managers**
- **Cost Analyst**
- **Govt Repair Depot**
- **Legal Counsel**
- **Financial Manager**

Support Providers

Key Functional Contributors

If not part of the solution…
Then likely part of the problem

PBL Implementation Framework

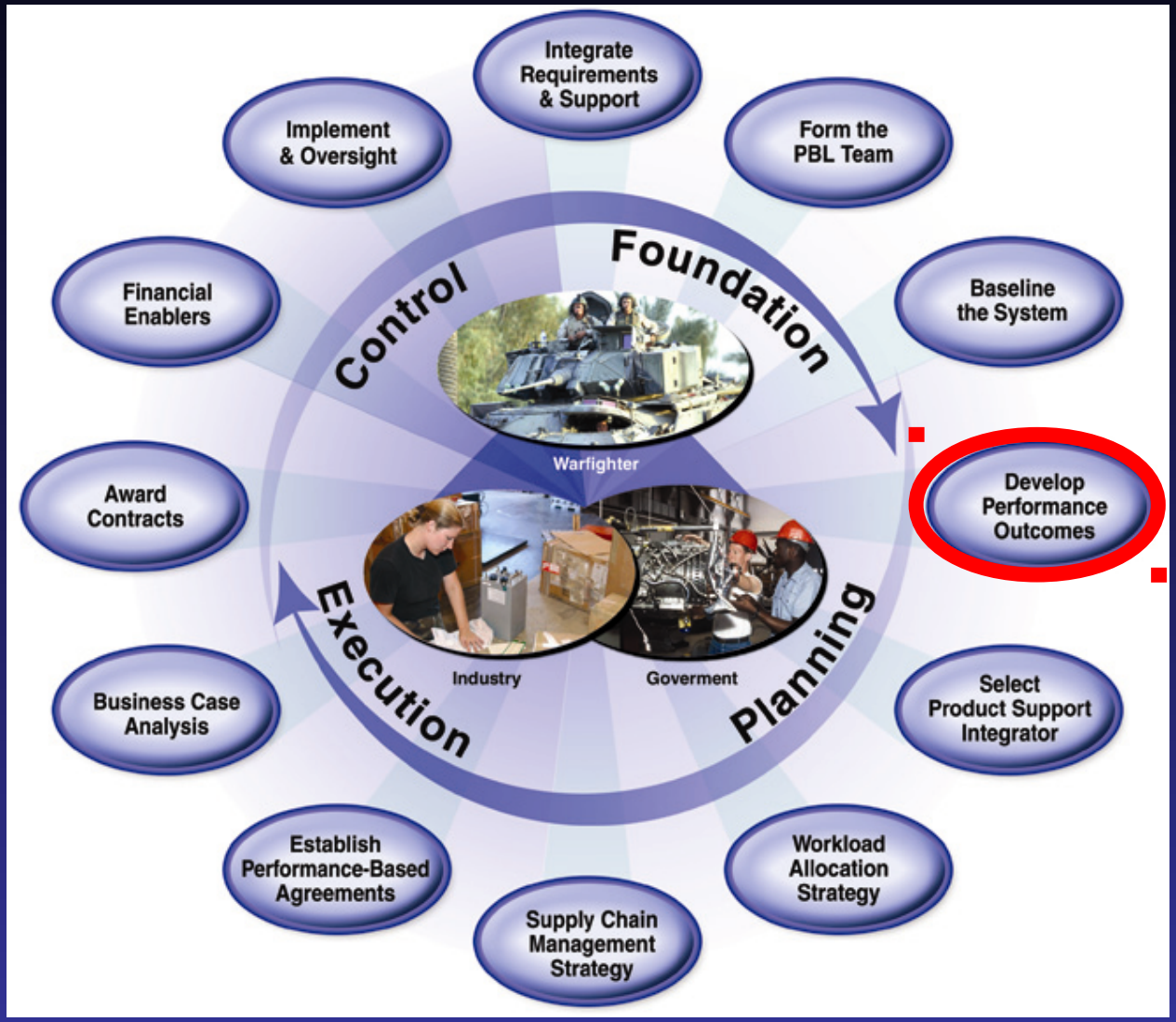


Baseline the System

Document the Baselir

- No two programs start at the same baseline
- Your starting point implies clear Constraints and Boundaries
  - Life Cycle Phase & Status
  - Existing Support Infrastructure
  - Statutory & Policy Requirements
  - Available Funding
  - Customers and Operational Requirements
- That will impact the Scope of Integration
  - Level (system, subsystem, component)
  - Logistics Elements (all, some, one)
- That will affect what can be Achieved
  - Support/Performance Outcomes

PBL Implementation Framework

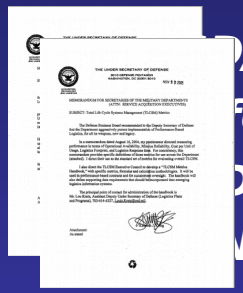


Develop Performance Outcomes

Identify Performance Outcomes and Metrics

OSD PBL "Top Level" Metric Categories

- **Operational Availability** — **Are we ready?**
- **Mission Reliability** — **Will we be effective?**
- **Cost per Unit Usage** — **What is the cost?**
- **Footprint** — **How much real estate do we need?**
- **Logistics Response Time** — **Are we sustainable?**



D/AT&L Memo: Performance Based Logistics; Purchasing Using formance Criteria 16 Aug 2004

D/AT&L Memo: Total Life Cycle Systems Management (TLCSM) Metri Nov 2005 (includes formulas)

PBL is all about "Performance"

1. Specify what is needed → **Performance Outcomes**
2. Select Metrics that will achieve outcomes → **Performance Measures**
3. Align Support Functions that drive metrics to the Product Support Integrator → **Performance Accountabili**
4. Ensure PSI(s) are motivated to achieve outcomes → **Performance Incentives**

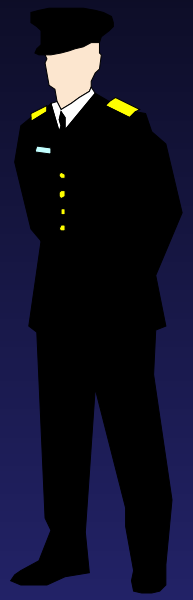
"TOP LEVEL" Outcomes Must Be Tailored

Product Support Integrator

Resulting in:

PBL Metrics & Performance Standards

Warfighter



- **Tailored to Scope of PSI Accountability**
- **Supporting Performance Outcomes**
- **Few better than Many**
- **Range of values (threshold to objective)**

F-117 PBL Objective Metrics

Metric	Standard	Weight
Non-Mission Capable Supply	5%	25%
Mission Capable Supply Delivery	72 Hours	15%
Readiness Spares Kits	96%	15%
Depot Quality: # of Discrepancy Reports	0-20	15%
Depot Delivery Days Late	0 days	15%
Delinquent Deficiency Report Responses	1 Delinquency	10%
Weapon System	99%	5%

Top Tier Award Fee Metrics

Example

JSTARS PBL Metrics

Example

OBJECTIVE (79%)

Metric	Weight
Cost Performance to Contract Estimate	30%
Total A/C Possessed Days	12%
Not Mission Capable Supply	10%
Average MICAP Delivery	8%
Software Productivity	6%
PDM Aircraft Quality	4%
•RSP Fill Rate •Sortie Effectiveness •AFTO Form 22 Incorporation •Flight Manual Review tasks	2% each

SUBJECTIVE (21%)

Metric	Weight
Training Effectiveness	7%
Weapon System Support, Field Service Reps, Supply Chain Management	5%
Engineering Support	3%
Program Control and Management	4%
Technical Data Management	1%
Quality Program	1%

0% Base Fee
10% Award Fee

PBL Implementation Framework

Select Product Support Integrator

What is a Product Support Integrator?

"The PSI is an entity performing as a formally bound agent (e.g. contract, MOA, MOU) charged with *integrating all sources of support*, public and private, defined within the scope of the Performance Based Logistics agreements to achieve the documented outcomes. *The product support manager, while remaining accountable for system performance, effectively delegates responsibility for delivering warfighter outcomes to the PSI. In this relationship, and consistent with "buying performance", the PSI has considerable flexibility and latitude in how the necessary support is provided, so long as the outcomes are accomplished."*

Source: Defense Acquisition Guidebook, Section 5.3.1.5

The PSI is the "Single Focal Point" for Support

Warfighter Outcomes

Performance Based Agreement

Contract/MOA

Supply/DLA

Contract Support

Product Support Integrator

Depot Repair

Transportation

Common Commodities

Organizational Maintenance

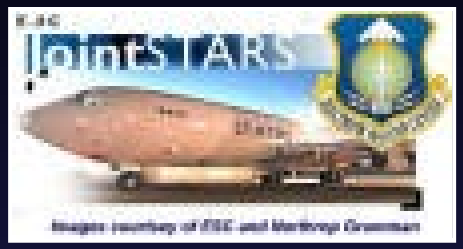
Why a PSI?

- Accountable PSI
  - System Expertise
  - System Focus
  - System Priorities
  - Incentivized
  - Rewards ‘at risk’
  - Failure has real consequences

- Traditional PSP
  - Process Expertise
  - Scattered Focus
  - Varying priorities
  - Not incentivized
  - Minimal risk
  - Failure has indirect consequences

“Must Do” vs. “Try to Do”

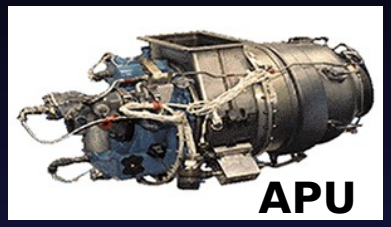
“Vertical” PSI Model



- **Product Support Integrator**
  - **Supply**
  - **Maintenance**
  - **Transportation**
  - **Engineering**
  - **Training**

- ***Single Point Accountability* with *platform/system level support responsibility***
- ***Generally most feasible with new Acquisition syste***
- ***Even “platform” PBLs seldom encompass 100%***

“Horizontal” PSI Model



PM Office Product Support Manager

PSI Airframe

PSI Engines

MOA Avionics

PSI Radar

MOA Landing Gear

Subsystem *vice System/Platform Approach*

Still Performance-Based, but **Accountability at lower levels**

Support functions may be mix of PBL, non-PBL, organic, contract

May be best approach for **Legacy systems**

Who is the PSI?

- **Candidates**
  - ***Prime Vendor/OEM (MOST PREVALENT)***
    - *Has knowledge of system; technical data, proprietary rights & licenses; unique parts; maintenance expertise*
  - ***Program Management Office (e.g. F-18 FIRST, NAVAIR PMO)***
    - *Best for integrating "horizontal" PBLs, System of Systems, etc.*
  - ***3PL (Third Party Logistics Provider) (e.g. Honeywell APU PBL)***
    - *Good candidate for process-intensive strategies (e.g. Supply Management)*
  - ***Organic Depot or ICP (e.g. Tobeyhanna Depot for Army CGS)***
    - *Good for legacy systems with large organic support infrastructure in place, and for small systems or sub-*

REMEMBER! The PSI <u>INTEGRATES</u> Support Within Scope of Contract/MOA

PSI Scope of Responsibility Varies Commensurate with the Scope of the PBL Strategy

LESS **PSI RESPONSIBILITY** **MORE**

Supply

Maintenance

Sub-Process **Process** **Commodity** **Subsystem** **Full System**

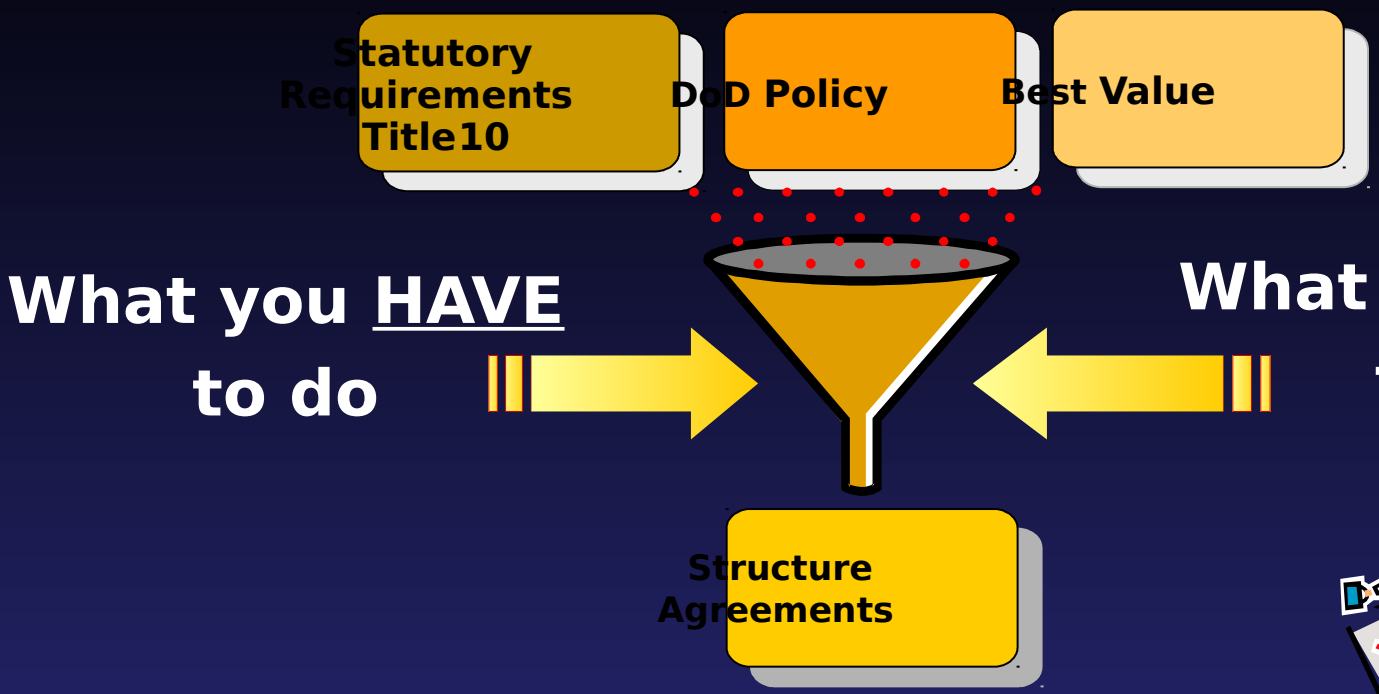
DoD **SCOPE OF PSI SUPPORT** **PSI**

Risk Transition

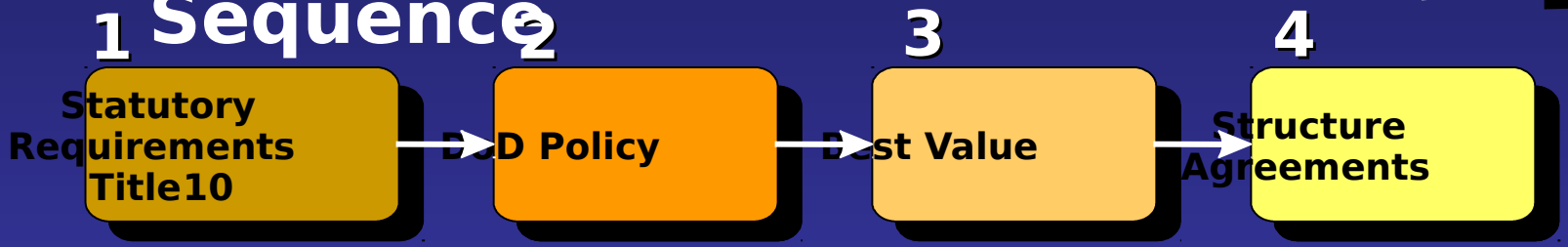
PBL Implementation Framework

Workload Allocation Strategy

Workload Allocation Process



Planning Process Sequence



Your Objective: A Complete WBS

GC GOVERNMENT CORE
G GOVERNMENT
P PRIME CONTRACTOR
S PRIME WITH COMPETITION AT 2ND TIER
PRIME CONTRACTOR VIA SLA

- Contracting
- Budgets
- Requirements
- Engineering

Authority/Accountability

TSSR
AUTHORITY & OVERSIGHT
G

PRIME INTEGRATOR
P

Public/Private Partnering

Combine Best Public/Private Capabilities

GSS - Ground Support System
MCTS - Mission Crew Training System
AMT - Aircraft Maintenance Trainer
MSS - Mission Support Subsystem
TMSS - Transportable Mission Support Subsystem
FCTS - Flight Crew Training System
SMS - Software Maintenance Subsystem

Partnership
COMMON SPARES
G

Partnership
ENGINES
GC

AIRCRAFT PDM
P S

FIELD SVC REPS
P

Partnership
SOFTWARE *
GC P S

SUSTAINING ENG
G P

E-8C SPARES
P S

TECH DATA
G P

Partnership
PME MAINTENANCE
GC P S

FCTS
S

PME MTS
S

IN FLIGHT TRAINER
S

GSS

AMT
S

MISSION CREW TRAINING
S

MCTS
G

SMS
G

MSS/TMSS
G

* Includes OFP Mx and GSS Software Merge, Block 10 Baseline

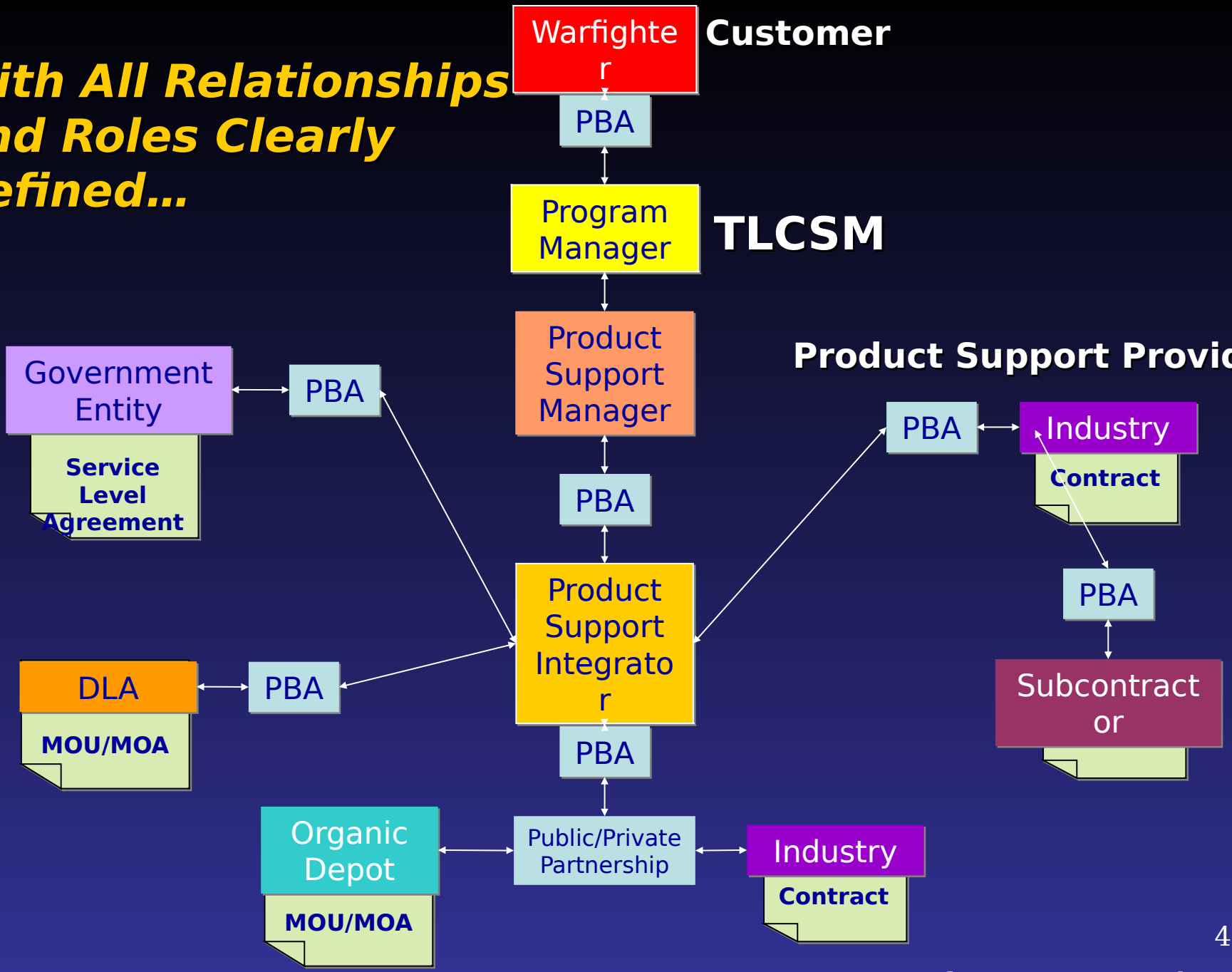
Prime Contractor Integrates Government/Industry Resources

Who Will Do the Work? Where will it be done? Can it be Performance Based?

- Identify what is BEST for EACH support function in terms of:
  - ✓ Compliance with Title 10
  - ✓ Compliance with Policy
  - ✓ Existing Baseline and Infrastructure
  - ✓ Capability & Skills
  - ✓ Opportunities for Partnering
  - ✓ Public/Private flexibility
  - ✓ Affordability – Best Value

Requires a formal analysis process

With All Relationships And Roles Clearly Defined…



PBA = Performance-Based Agreeme

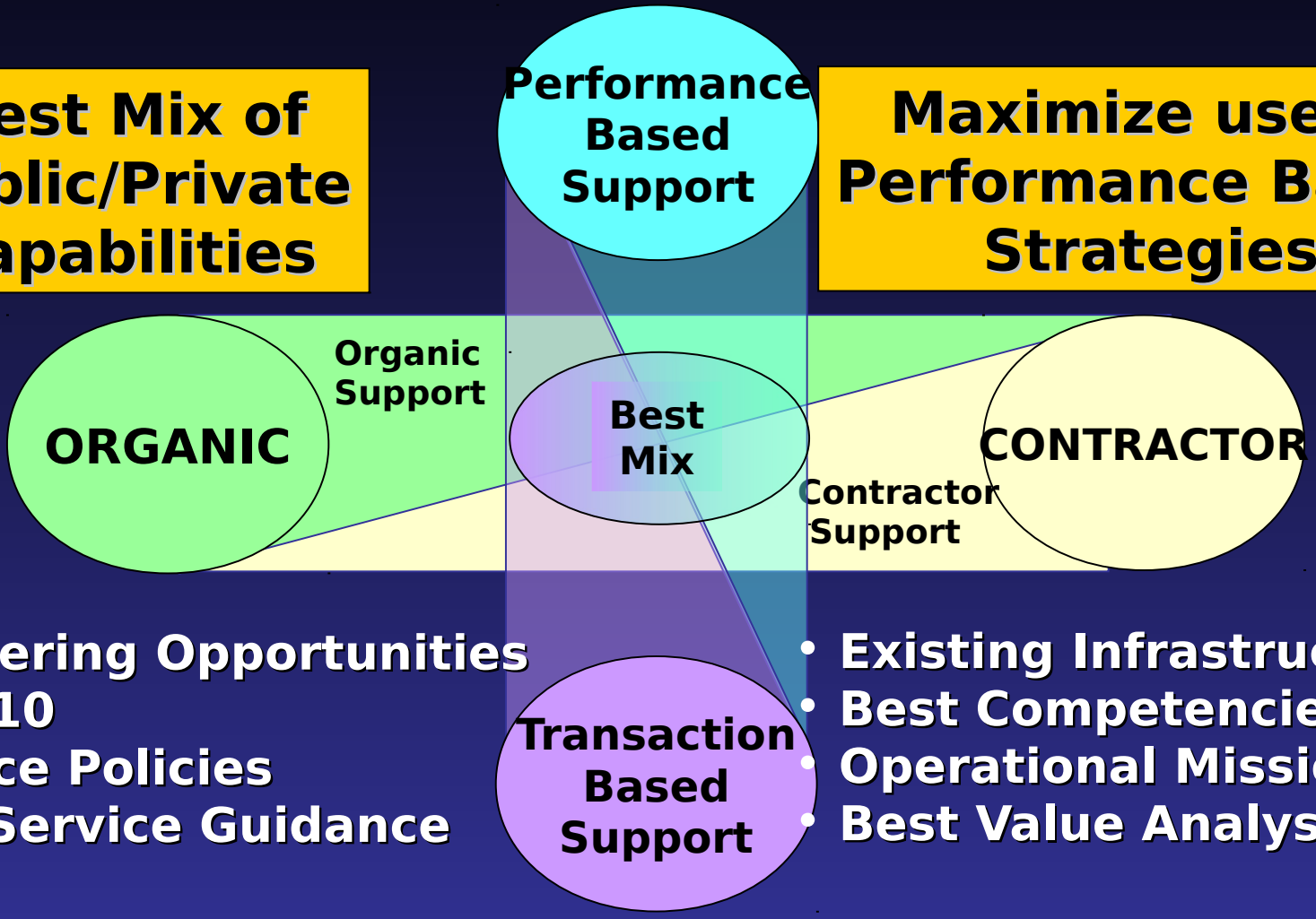
DOD 5000 Policy

"Sustainment strategies shall include the best use of *public and private sector capabilities through government/industry partnering* initiatives, in accordance with statutory requirements."

Spectrum of Support Opportunities

Best Mix of Public/Private Capabilities

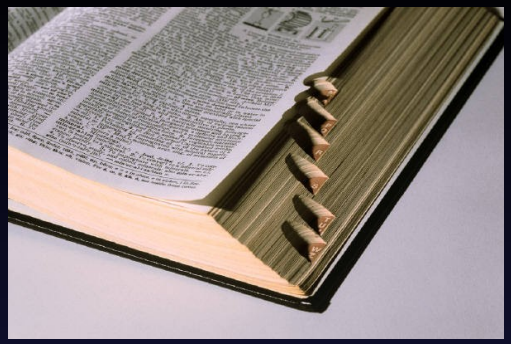
Maximize use of Performance Based Strategies



- Partnering Opportunities
- Title 10
- Service Policies
- OSD/Service Guidance

- Existing Infrastructure
- Best Competencies
- Operational Mission
- Best Value Analysis

Definition



A public-private partnership for depot maintenance is an agreement between an organic depot maintenance activity and one or more private industry or other entities to perform work or utilize facilities and equipment.

JDMAG Report for SECDEF
Public-Private Partnerships for Depot Level Maintenance
Jul 2003

PBL Offers Multiple Opportunities for Partnering

Contractor/Depot personnel sharing workloads

Organic Depot as Subcontractor to Industry PSI

Industry Prime Vendor (Product Support Integrator)

Subcontractor

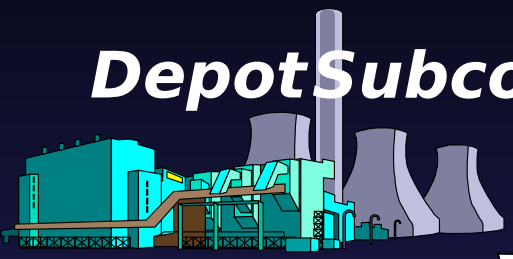
DoD Depot (Subcontractor)

Subcontractor

Subcontractor

Contractor utilizing Depot facilities

Partnering Benefits All Stakeholders!



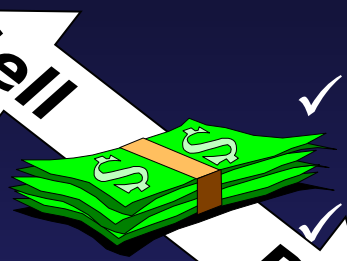
Depot

Subcontractor

- ✓ Compliance with CORE
- ✓ No 50/50 impact
- ✓ Leverages Organic Depot labor skills base
- ✓ Leverages Commercial Supply Chain focus
- ✓ Maximizes use of Depot

PM

Touch Labor



Manage Work

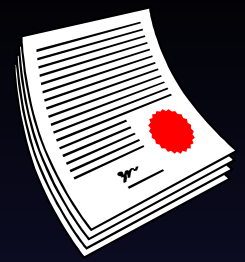
Manage Supply

Accountability

Title 10 Section 2563 "Direct Sales"

Product Support Integrator

What are the Key Title 10 Sections?

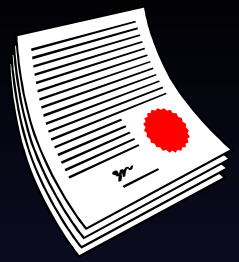


- **10 U.S.C. 2464 – Core Logistics**

  - **Performance of workloads necessary to maintain a core logistics capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government operated equipment and facilities)**

- ***Ensures that the Government will always have a minimum essential core infrastructure of Defense capabilities***
- ***MILDEPS (Services) have flexibility to define "Core" workloads***
  - ***It varies by Service, and even within Service***
  - ***Some by Weapon System***
  - ***Some by Major Commodity (e.g. Aircraft Engines)***
- ***Services have flexibility in determining when they "meet" Core requirements***
  - ***Example: Engines are Core; Service has several engines as Core Depot Maintenance workload; New engine workload surfaces – Service determines that existing***

What are the Key Title 10 Sections?



10 U.S.C. 2466 – 50 Percent Limitation on Contracting

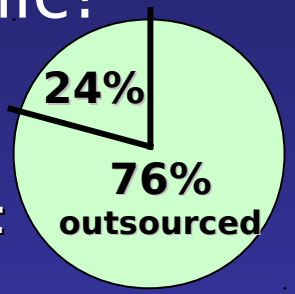
–Not more than 50 percent of the funds made available to a military department in a fiscal year for depot maintenance may be used to contract for performance by non-federal government personnel

- **Based on FUNDS, not MANHOURS or PERSONNEL**
- ***A "safety net" measure by Congress to ensure that the MILDEPS don't "abuse" their flexibility in defining Core workloads and meeting Core requirements***
- **Used to be 60/40 – trend has favored increased contractor support**
- **No clear penalties for breach**
- ***Contractors working at Depot are not counted in the 50/50 computation!***

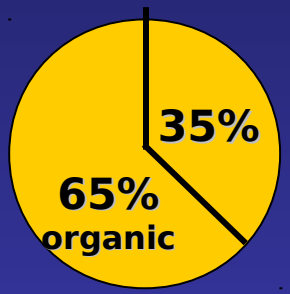
CORE and 50/50 Example

- C-17 Landing Gear is a “CORE” workload
- Ogden Air Logistics Center is Depot CITE
- USAF CORE assessment determined that:
  - to maintain compliance with CORE (minimum essential organic capability) to repair landing gears, 24% of the C-17 L/G workload should be organic (ergo, 76% could be contracted out)
- HOWEVER, subsequent USAF assessment of their overall 50/50 position required revision of L/G workload from 24% organic to 65% organic!

Step 1: CORE Assessment



Step 2: 50/50 Assessment



Title 10 and Partnering

10 USC Sec. 2474

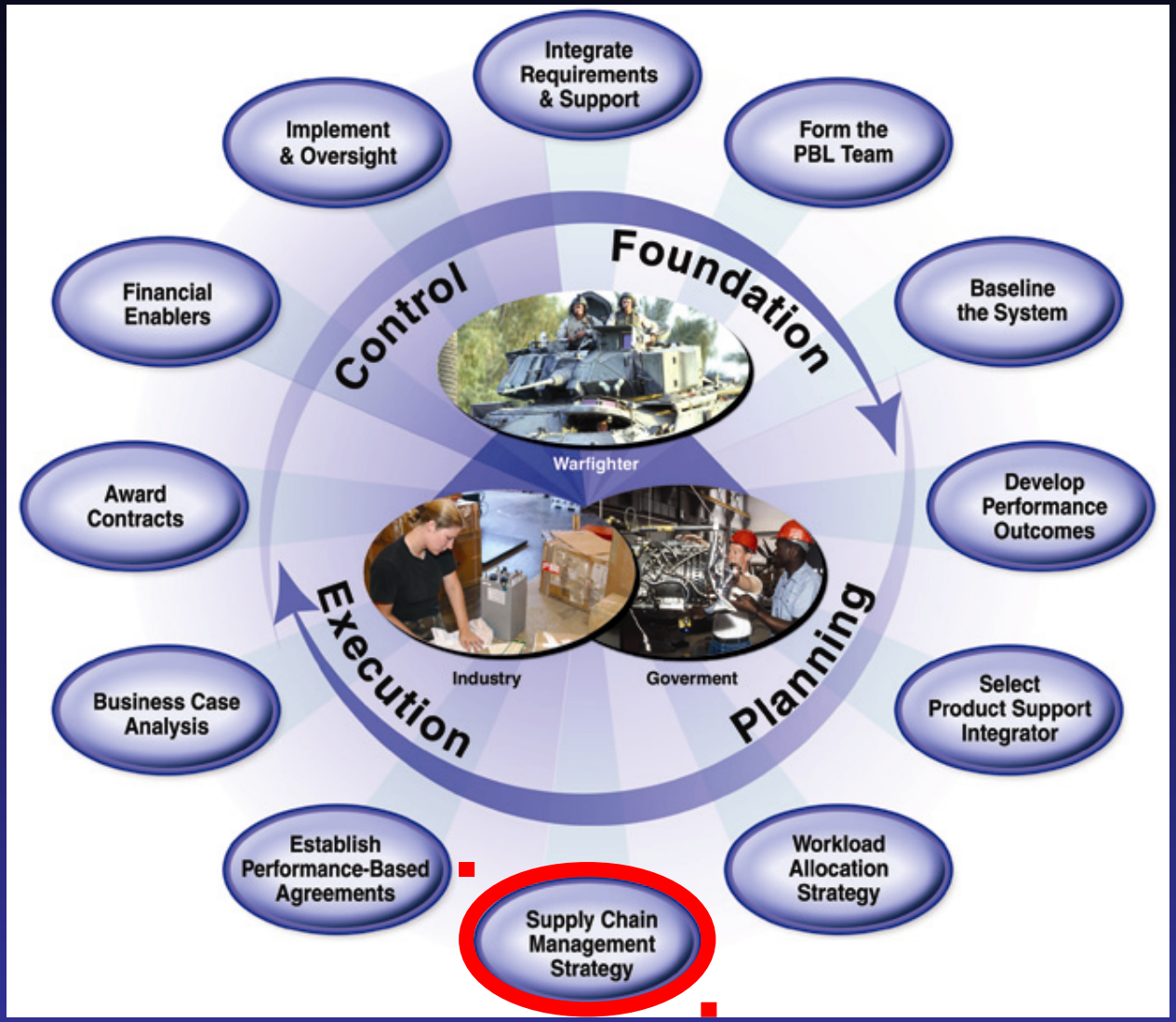
- Service Secretaries can designate Depots as Center of Industrial and Technical Excellence (CITE) in their core competencies
- After designation, **Depots may enter into Public/Private Partnerships with Industry in workloa related to their core competency**
- Workloads may be performed by Depot employees, Industry employees, or "other entities outside DoD
- Under contract, subcontract, or "otherwise"
- Promotes efficient and optimum utilization of the Depot
- Promotes industry investment in Depot facilities

Title 10 and Partnering

10 USC Sec. 2563 (Depot performing as Subcontractor)

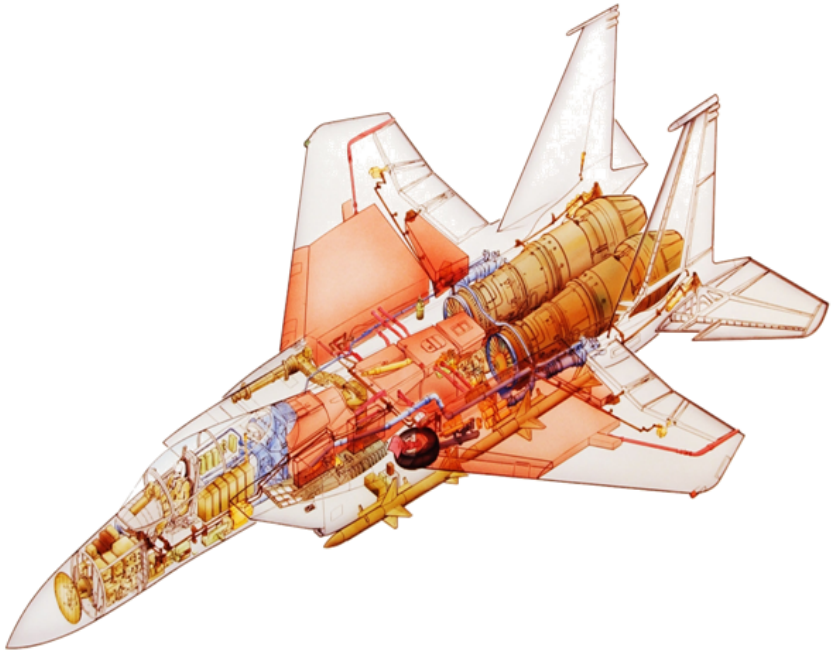
- **Articles and services of industrial facilities: sale to persons outside the Department of Defense**
- **Conditions for Sales**
  - **The Secretary of Defense determines that the articles or services are not available from a commercial source in the United States**
    - ***The purchaser agrees to hold harmless and indemnify the United States, except in the case of:***
      - ***willful misconduct or gross negligence***
      - ***the failure of the Government to comply with quality, schedule, or cost performance requirements***
  - Can be accomplished with only incidental subcontracting;
  - It is in the public best interest
  - Will not interfere with the military mission of the industrial facility concerned; and
  - Will not interfere with performance of work by the industrial facility concerned for the Department of Defense.

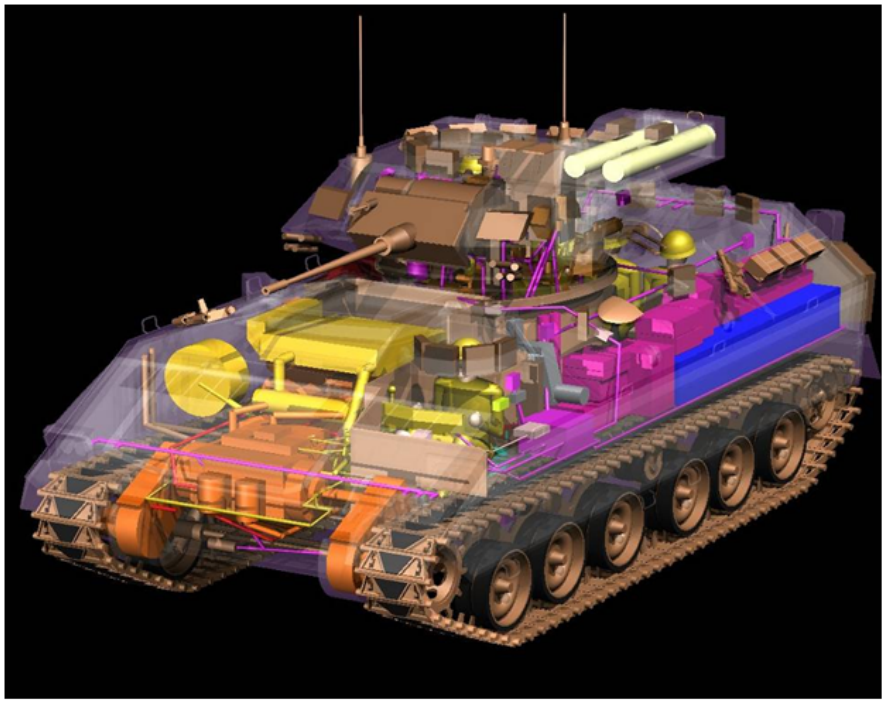
PBL Implementation Framework



Supply Chain Management Strategy

Supply is Important!





From a logistics perspective . . . supporting an F-15 is about 171,000 parts flying. . . and a Bradley is about 14,000 parts rolling in close formation

How PBL Optimizes the Logistics Chain

- Focuses on an END PRODUCT vs. an inventory commodity (Customer vice Process optimization)
- Leverages Commercial sector advantages in forecasting, procuring, and managing inventories
- Incentivizes suppliers to do the right 'things'
  - Deliver Availability
  - Manage Obsolescence
  - Improve Reliability

Leverages Commercial Competencies!

PBL/Partnering Material Availability

And it Works!

Navy Program	Pre-PBL	Post-PBL
F-14 LANTIRN	73%	90%
F/A-18	62%	85%
H-60 Avionics	71%	85%
F/A-18 Stores Mgmt System (SMS)	65%	98%
Tires	70%	85%
APU	65%	90%
AEGIS	65%	95%

Material Availability increased an average of 30%-40% through PBL

Improving Material Availability through PBL/Partnering

PBL Logistics Response Time

Navy Program	Pre-PBL	Post-PBL
F-14 LANTIRN	56.9 Days	5 Days
ARC-210	22.8 Days	5 Days
H-60 Avionics	52.7 Days	8 Days
F/A-18 Stores Mgmt System (SMS)	42.6 Days	2 Days CONUS 7 Days OCONUS
Tires	28.9 Days	2 Days CONUS 4 Days OCONUS
APU	35 Days	6.5 Days

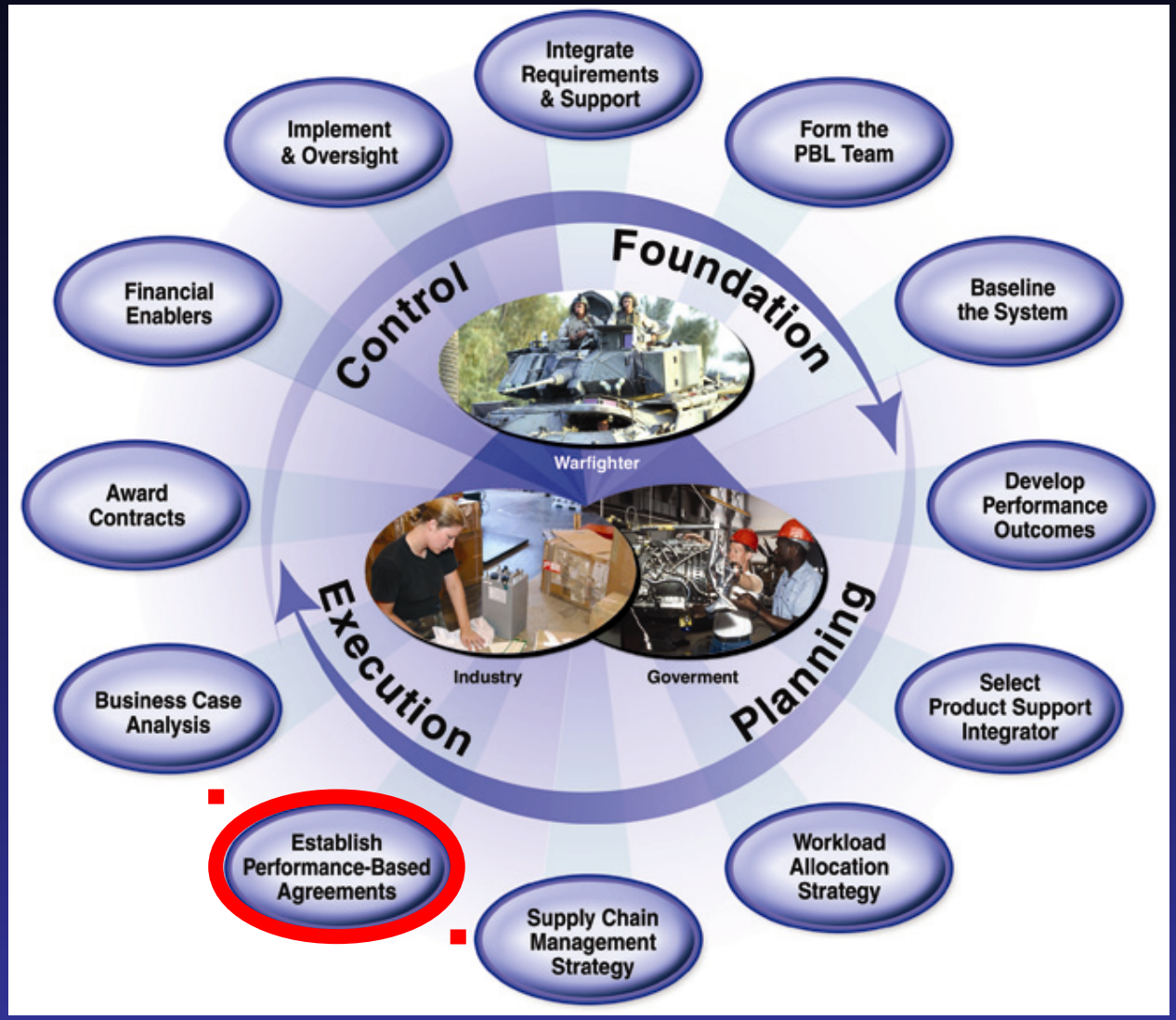
Aircraft and Equipment Logistics Response Times (LRTs) decreased an average of 70%-80% through PBL

Achieving Commercial Standards through PBL

Notional Supply Chain Management Strategy

Items	Materiel Mgmt Wholesale	Depot Repair	Retail Supply
Unique Reparables	PSI	PSI/Organic (subject to Title 10 USC)	Organic
Common Reparables	Organic	Organic	Organic
Unique Consumables	PSI (DLA preferred source)	N/A	Organic
Common Consumables	DLA (with option to use other source)	N/A	Organic

PBL Implementation Framework



Establish Performance Based Agreements

DOD 5000 Policy

"The PM shall work with the users to document performance and support requirements in performance agreements specifying objectives outcomes, measures, resource commitments and stakeholder responsibilities."

Performance-Based Logistics Is Built on AGREEMENTS!

INDUSTRY/ORGANIC

Product Support Integrator

Buys Performance As a Package

Weapon System Manager

Warfighter/Force Provider

Agreement

Agreement

PM

Ensure System is Sustained at optimum Level per PBA

Provide continuous Reliable, affordable Support per PBA

Acquisition *Sustainment* *Disposal*

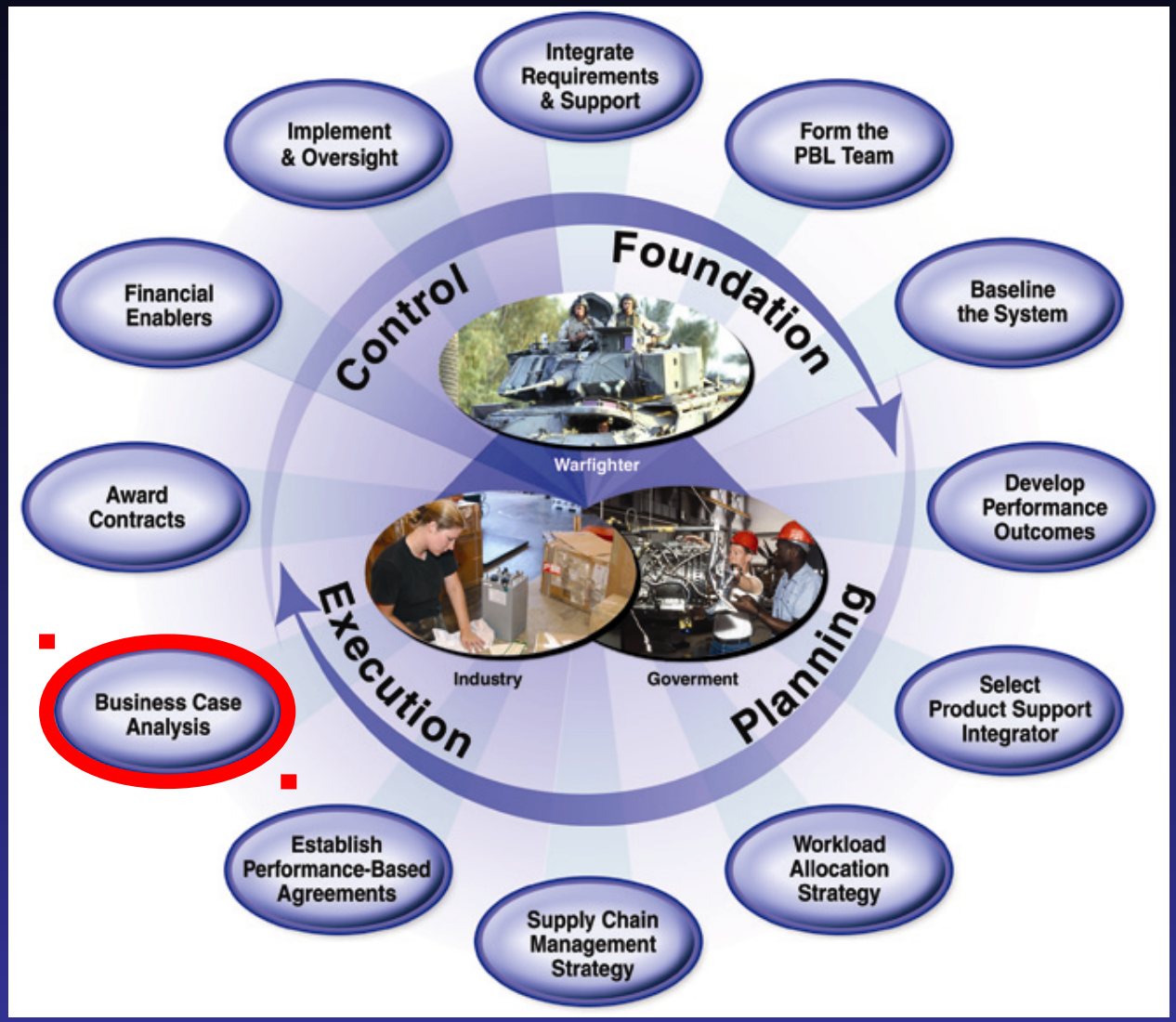
Visibility into cost/risk decisions across life cycle

Performance Based Agreements

- **Performance Based Agreements are a Critical Element in Implementing PBL**
  - ✓**Define Expectations of Force Provider**
  - ✓**Define Roles and Responsibilities**
  - ✓**Define Range of Support Requirements**
  - ✓**Basis for Negotiating Support Contracts**
  - ✓**Ensure Accountability in Meeting Warfighter Requirements**
- **Getting Them Right is Critical!**

Clarify Support Expectations!

PBL Implementation Framework



Business Case Analysis

Business Case Analysis

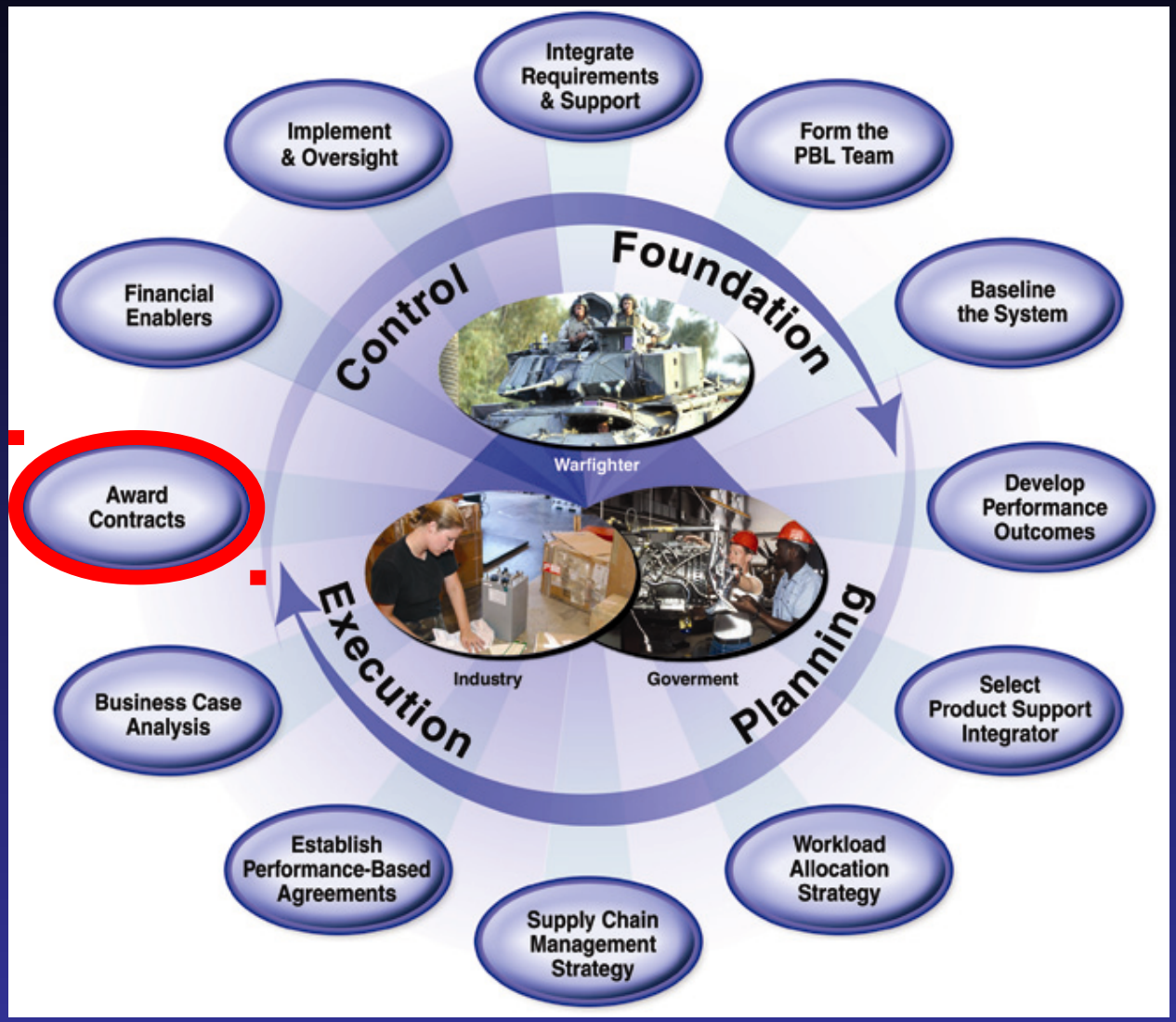
- **BCAs required by Statute**
  - **Section 346, 1999 NDAA**
- **BCAs required by USD/ATL**
  - **23 Jan & 20 Mar 2004 USD/ATL Memos re BCA guiding principles**
    - *BCAs to be used to assess and select best value support strategy*
    - *Based on Warfighter-stated performance requirements documented in PBAs; must be completed by Milestone C*
    - *Must address LCC, footprint, reliability, risk, obsolescence, performance metrics, supportability*
- **BCAs required by FY06-11 Strategic Planning Guidance**
  - *In order to extend the benefits of PBL to additional systems, Components will perform BCAs on each fielded ACAT I and II weapon systems not currently planned to implement PBL. Results will be used to determine if a PBL arrangement is the preferred means of providing log support. BCAs will be provided to USD(AT&L) by 30 Sep 06.*

Business Case Analysis

- **"BCAs will be conducted to assess *changes from existing product support strategies for legacy systems* and *to support the product support strategy for new weapon systems"***
- ***USE #1: Legacy Systems***
  - *Difficult for Legacy Systems to do "wholesale transition" to PBL*
  - *More likely: PBL at Subsystem, process level (upgrade, mod)*
- ***USE #2: New Weapon Systems***
  - *PBL is default support strategy (unless waivered)*
  - *Best allocation of workloads*
  - *Most affordable solution*
  - *Compliance with Statutes and Policy*
  - *Best use of Partnering opportunities*

The BCA serves to determine the best mix of organic, contract, and statutory factors in optimizing the chosen approach

PBL Implementation Framework



Award Contracts

PBL Contracting Strategy

Is CRITICAL…

- Best PBL strategy can be handicapped by a poor contracting strategy
- Priority actions in devising a contracting strategy are:
  - Contract Type, and
  - Contract Phasing

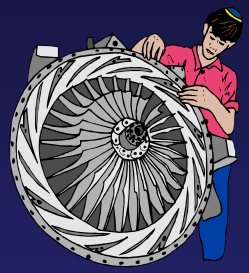
Your primary objectives are to make the contract type correspond to:

- Level of risk consistent with the phase of the program
- Level of risk is associated with the maturity of the cost, resource, and system baselines

Ultimate goal is a Fixed Price contract

Typical CLS Contract Support

Parts



Repairs

Technical Support

The more I sell, the more profit I make!

Low Risk

CLS Contractor

DoD High Risk

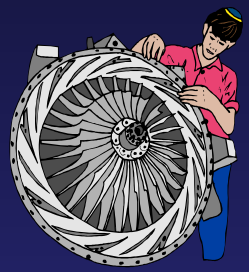
- Forecast Requirements
- Specify Buy Quantities
- Pay for each on a Unit Price basis
- Assume all risk for:
  - right parts
  - right repairs
  - right time
  - right quantities

PBL Contract Support

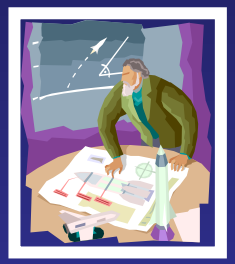
Motivated to:

- ***Improve Reliability***
- ***Improve Repair processes***

Parts

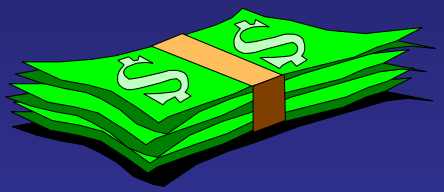


Repairs

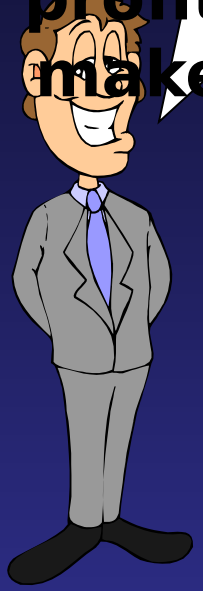


Technical Support

- Forecast Requirements
- Make buy decisions
- Assume all risk for:
  - right parts
  - right repairs
  - right time
  - right quantities

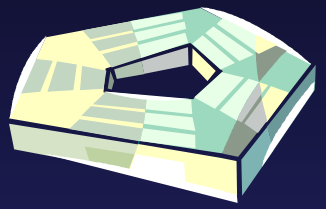


The less I use, the more profit I make!



Product Support Integrator

DoD

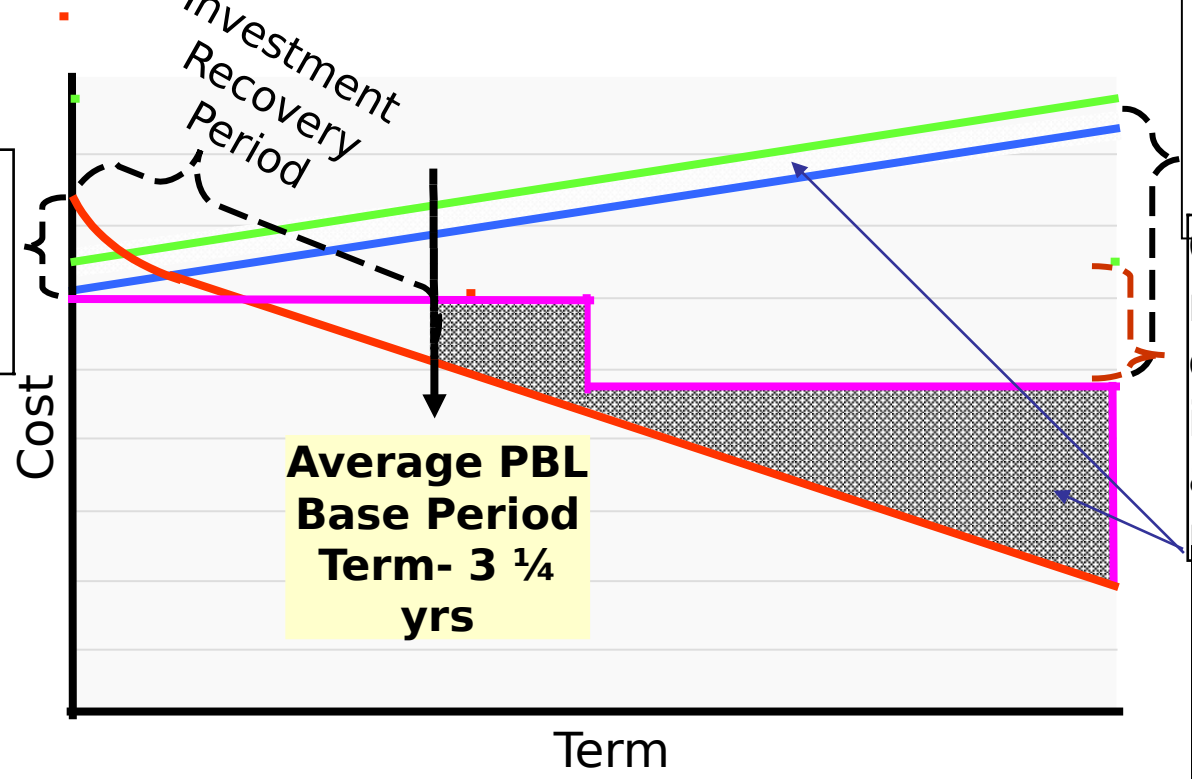


- Specify Performance Outcomes

Low Risk

Cost-Value Benefits of PBL

Traditional vs. Performance-Based Contract



Investment to improve reliability

Total Cost for the Government is lower

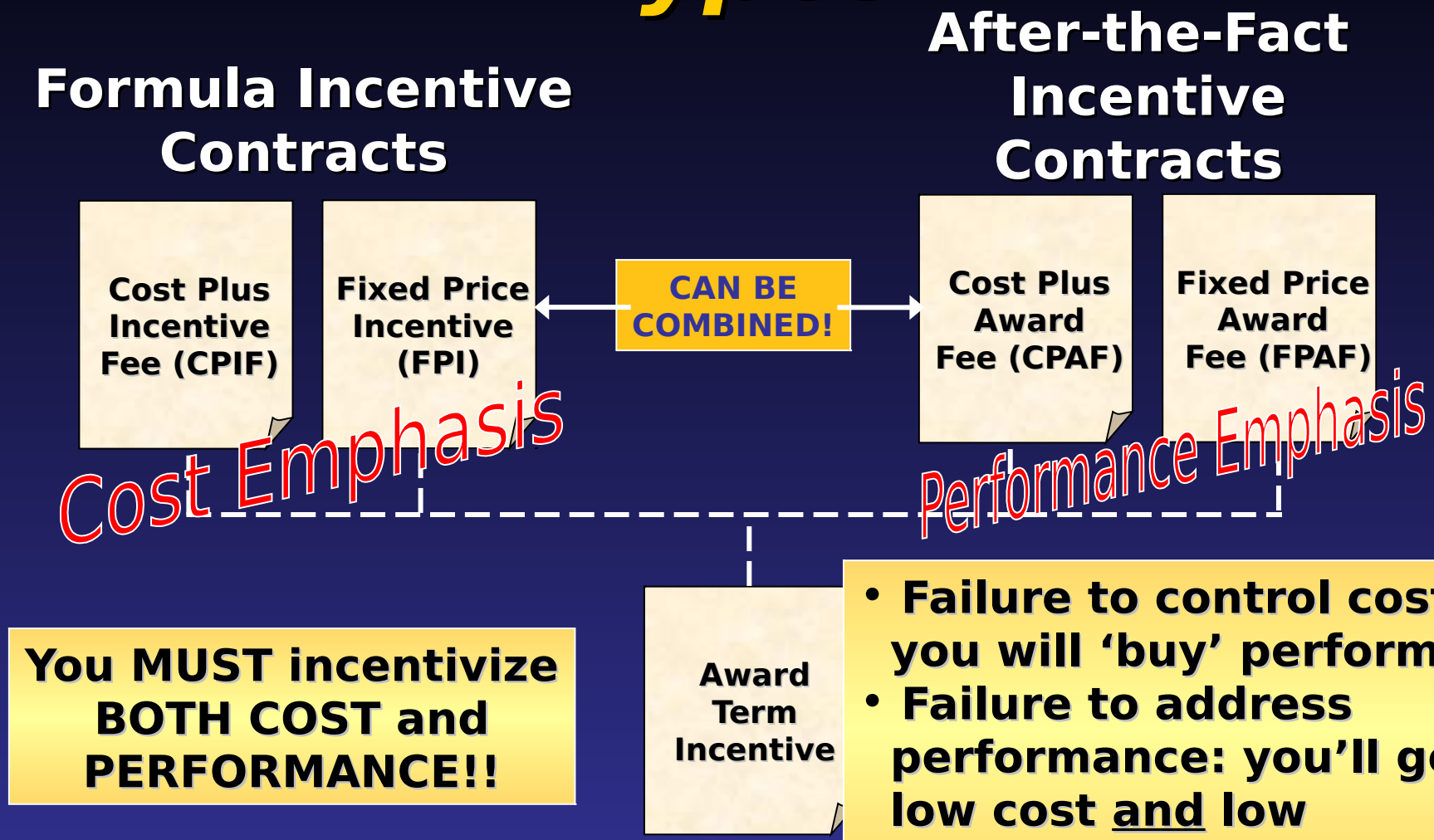
Obsolescence may offset some cost improvements anticipated at renewal

Providers' profits are higher (Area between the lines is bigger with PBL)

Contract Duration Incentivizes Investment in Reliability

PRTM Management Consultants

DoD Incentive Contract Types



You MUST incentivize BOTH COST and PERFORMANCE!!

- **Failure to control cost: you will 'buy' performance**
- **Failure to address performance: you'll get low cost and low performance!**

Formula Incentive Contracts

- **Motivate COST focus (CPIF Example)**

ost Paid: Reimbursement for work/cost incurred
arget Cost: $1M
arget Fee: $100k
hare Ratio (cost under run): 80%/20% (Ktr/DoD)
hare Ratio (cost over run): 20%/80% (Ktr/DoD)
ctual Cost: $900k
ost under run: $100k
mount ADDED to Target Fee: $80k ($180k to KTR)
R…Cost over run: $100k
mount SUBTRACTED from Target Fee: $20k ($80k to K
igh administrative burden

After-the-Fact Incentive Contracts

- **Motivate a PERFORMANCE focus**
  - Contractual Elements
    - Fixed Price (FPAF) or Estimated Costs (CPAF)
    - Base Fee (CPAF only: No more than 3%)
    - Award Fee amount and schedule (e.g. 5 – 10%)
  - Other Elements
    - Award Fee Board
    - Fee determining official
  - Contractor earns Award Fee amount based on level of performance against Award Fee schedule

NOTE: Firm Fixed Price contracts generally use negative incentives (cost reductions for failure to meet metrics)

Contract Management Incentive Metrics

Example

Award Fee Schedule

METRIC	NMCS NON-NSN ITEMS (%)	MICAP DELIVERY (HRS)	RSP KITS XD (% fill)	DEPOT DELIVERY (Days Late)	DEPOT AIRCRAFT QUALITY (Pts.)	DELINQUENT DRS (#)	WST AVAILABLE (%)
WEIGHT	25	15	15	15	15	10	5
10	5.0 - below	72	96%	0 - 0.9	20	1 or Less	99.0%
9	5.1 - 5.5	73 - 84	95%		21 - 25	2	98.5%
8	5.6 - 5.0	85 - 86	94%	1.0 - 1.9	26 - 30	3	98.0%
7	6.1 - 6.5	97 - 108	93%		31 - 35	4	97.5%
6	6.6 - 7.0	109 - 120	92%	2.0 - 2.9	36 - 40	5	97.0%
5	7.1 - 7.5	121 - 132	91%		41 - 45	6	96.5%
4	7.6 - 8.0	133 - 144	90%	3.0 - 3.9	46 - 50	7	96.0%
3	8.1 - 8.5	145 - 156	89%		51 - 55	8	95.5%
2	8.6 - 9.0	157 - 168	88%	4.0 - 4.9	56 - 60	9	95.0%
1	9.1 - 9.5	169 - 180	87%		61 - 65	10	94.5%
0	9.6 & Up	181 & Up	86%	5.0 or More	65 & Up	11 & Up	94.0%

SCORE

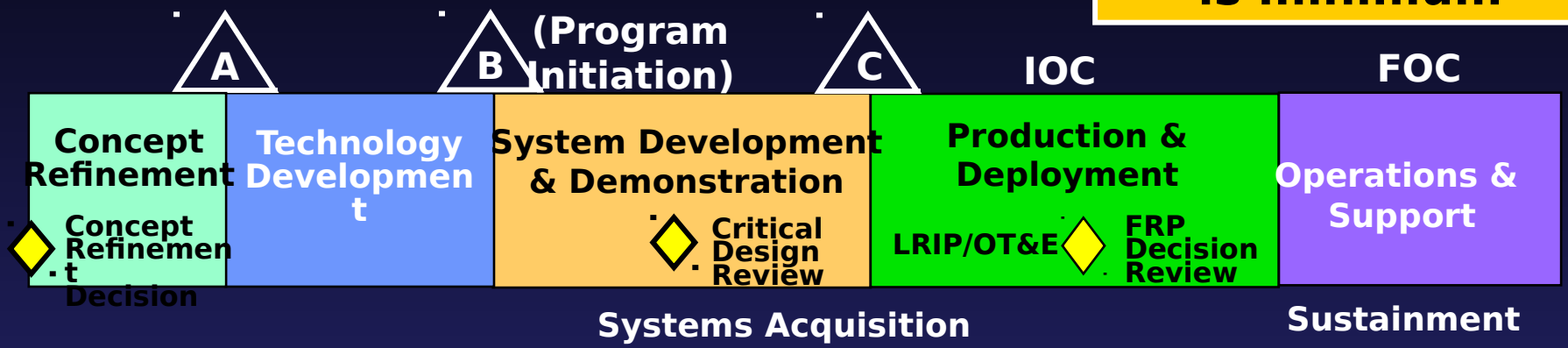
Can contain both QUANTITATIVE and QUALITATIVE assessments

DoD Incentive Contracts

- **Award Term Contracts**
  - Applied to Cost Plus or Fixed Price contracts
  - Contractor performance against stipulated criteria (similar to Award Fee incentive)
  - Rewards contractor for excellent performance by extending contract without competition
    - Contingent upon Government's continuing need
    - Availability of Funds
    - Contract length must remain consistent with applicable FAR requirements
  - NOT the same as a contract "Option Period"

PBL Contract Phasing

Transition to FP When Pricing Risk is minimum



Pre-Planning (CPFF)	Cost Plus (CPAF or CPIF)	Fixed Price (FFP, FPAF)

- Forecast Supply Data
- Forecast Repair Data
- Forecast Cost Baseline
- Develop Initial Metrics
- Develop Initial Incentives

- Collect Supply Data
- Collect Repair Data
- Compile Cost Baseline
- Apply Initial Metrics
- Apply Initial Incentives
- Assess Results

- Finalize Metrics
- Final Incentives
- Assess Results

F-117 Performance Targets

Example

Contract Terms

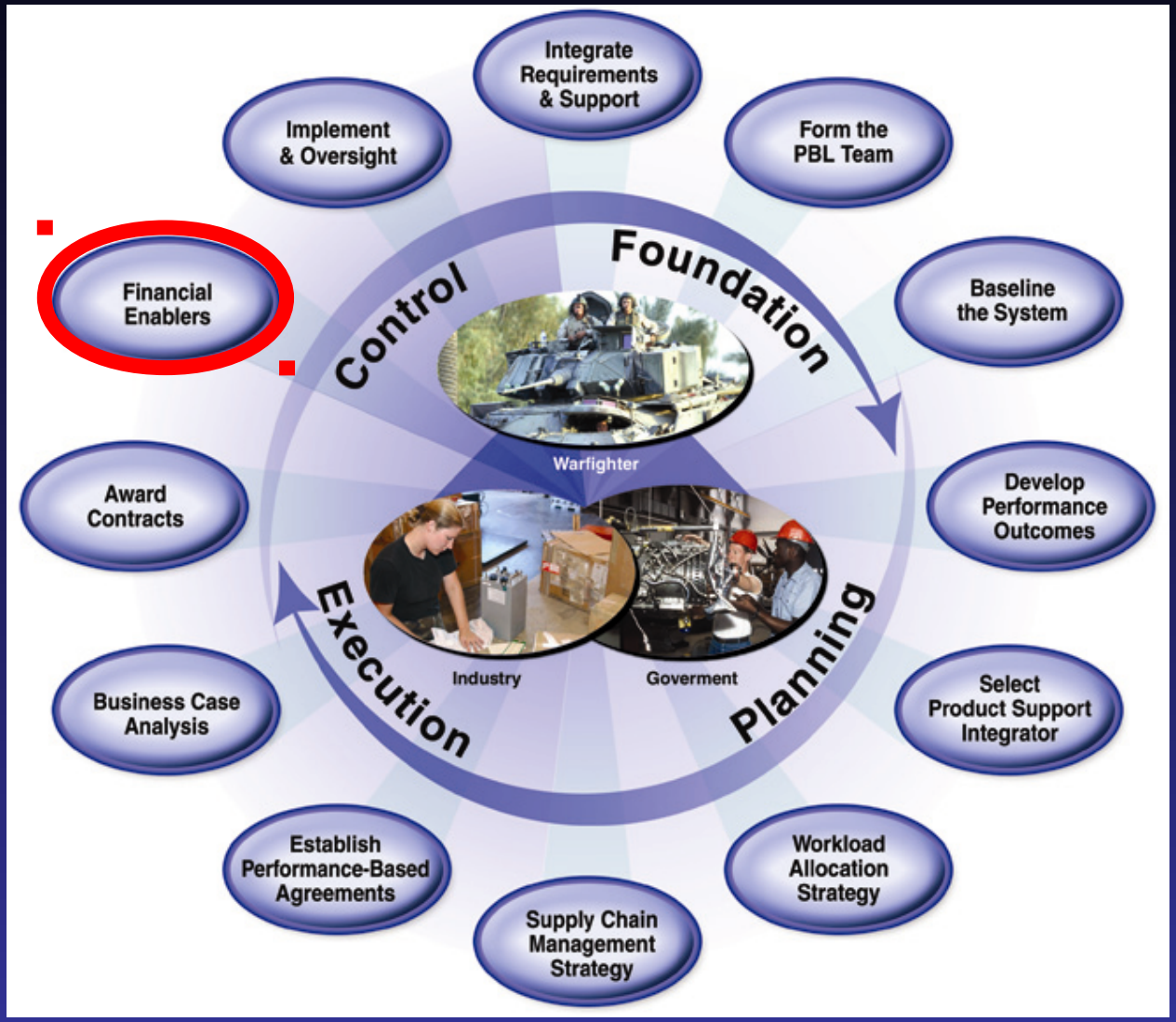
- Initiated 1998
- 5 year w/3 yr A/T optic
- Cost Plus IF/AF
- 7% Award Fee (obj.)
- 3% Award Fee (subj.)
  - Technical 20%
  - Management 30%
  - Subcontracting 15%
  - Cust. Satisf. 35%
- 50/50 Share Ratio

CPIF/AF With Award Term

Metric	Standard	Weight
Non-Mission Capable Supply	5%	25
Mission Capable Supply Delivery	72 Hours	15
Readiness Spares Kits	96%	15
Depot Quality: # of Discrepancy Reports	0-20	15
Depot Delivery Days Late	0 days	15
Delinquent Deficiency Report Responses	1 Delinquency	10
Weapon System	90%	5

You MUST address <u>both</u> COST and PERFORMANCE!

PBL Implementation Framework



Financial Enablers

Financial Barriers to PBL

- Funding Instability
  - PBL relies on long term contracts
  - O&M funds are “1 year money”
  - Execution year reallocation of $$
  - Result: less incentive to invest in improvements
- Colors of Money
  - We’re buying “outcomes” – don’t care “how” it’s done
  - Support providers may buy, repair, manufacture to meet outcome – BUT: each requires different color of funds
  - Result: Must include contract CLINS for funds that “may” be needed; amount to specify is a “guess”

PBL Funding Source

- **O&S /O&M**
  - Single Year Sustainment funding
  - Cannot implement true multi-year contracts
  - Limits on use (i.e. no procurement)
  - Sensitive to funding instability
- **Working Capital Fund**
  - 'No-Year' money – allows multi-year contracts
  - Often used for legacy systems/subsystems
- **Procurement (3 year funds)**
  - Used for Acquisition program sustainment during Development and Production
  - May need a Procurement CLIN during Sustainment
- **RDT&E (2 year funds)**
  - May need an RDT&E CLIN during Sustainment

PBL Implementation Framework

Implement and Oversight

Implement and Oversight

- **PM Oversight Role**
  - Develop Performance Assessment Plan
  - Monitor PSI performance vis-à-vis Performance Based Agreements/contracts
  - Revise/Adjust as necessary
    - Product Support Strategy
    - PBAs
- **Act as agent for Warfighter**
  - Certify PSI performance
  - Approve payment of incentives
  - Take a "hands on" approach – DON'T assume Contracts/Agreements will be self-regulated

PBL Implementation Framework

Additional Resources

EXPLORER ACC HOME
PBL Toolkit
PBL 12-Step Process Model
Integrate Requirements & Support
Form PBL Team
Baseline the System
Develop Performance Outcomes
Select PSI
Allocate Work
SCM Strategy
Establish PBA's
Business Case Analysis (BCA)
Award Contracts
Financial Enablers
Implement and Oversight
Library

BOOKMARKS
My Business Card
My Personal Topic
My Preferences
My Options
My Inbox
Course Content
DoD-Industry PBL Tiger Team "Corporate Contracting" - 26 Jan 05
LOG 235
LOG Curriculum
Logistics Management
PBL Tiger Team
PBL Toolkit
Professional Development

TOOLS
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Main View | What's New

NEW!! PBL Toolkit Launched!

https://acc.dau.mil/pbltoolkit

PBL Toolkit

Performance Based Logistics Toolkit

ID: 29497

restricted Topic
Viewed 1457 times

Welcome to the PBL Toolkit Homepage

Performance Based Logistics (PBL) is the preferred Department of Defense (DoD) product support strategy to improve weapons system readiness by acquiring a desired level of operational performance, capitalizing on integrated logistics chains and public/private partnerships. The cornerstone of PBL is the acquisition of weapon systems and equipment sustainment as an affordable, integrated package based on attaining output measures such as weapons system availability, rather than focusing on separate input measures, such as parts, training, maintenance and technical services.

In the PBL environment, a government/industry team is a key long-term relationship that is developed among public and private stakeholders contractually and/or with performance agreements. The team, under the government Program Manager's leadership, is based upon a foundation of building trust whereby there is mutual accountability for achieving the outcome performance goals in managing reliability, supportability, and Total Ownership Cost (TOC) over the life cycle of a weapon system or item of equipment. The designated weapon system or equipment program manager often does not have command authority over all of the required organizations, capabilities or functions needed to attain desired levels of support. Under PBL, however, the mechanism is put into place to create a network of capabilities and initiatives required to attain the prescribed performance, cost and customer satisfaction supportability targets.

To assist the Program Manager in creating and implementing PBL support agreements, DAU has created the PBL Toolkit. The PBL Toolkit provides the Program Manager with a comprehensive set of tools and references for integrating Performance Based Logistics into the logistical support of a weapon system. The toolkit systematically documents the strategy and necessary implementation actions for effective use of the PBL strategy to attain the desired levels of support performance, cost management and customer satisfaction.

To begin using the PBL Toolkit, click here to navigate to an interactive page consisting of a 12 step PBL methodology. Click on any of the 12 interactive ovals to navigate directly to a PBL step. Uses may also navigate through the toolkit using the menu on the left side of the screen, or may navigate sequentially through the toolkit using the forward/backward/home buttons located below the text of each page.

Users may also interact with the PBL Toolkit by participating in discussion forums. For guidance on participating in a PBL discussion forum, click here. Users may also help grow the toolkit by adding reference materials using the "My Knowledge" feature. For guidance on using the "My Knowledge" feature, click here.

The PBL Toolkit also contains a library page that allows users to quickly navigate to all of the references contained in the toolkit. Users may locate references using the comprehensive master list, or may locate references by PBL Toolkit topic.

EXPLORER ACC HOME
PBL Toolkit
PBL 12-Step Process Model
Integrate Requirements & Support
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BOOKMARKS
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My Personal Topic
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PBL 12-Step Process Model

PBL 12-Step Process Model

ID: 79171

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PBL is a strategy for weapon system product support that meets performance goals for a weapon system through a support structure based on long-term performance agreements with clear lines of authority and responsibility.

The development and management of PBL arrangements consist of 12 discrete steps. Each step contains directions to support the successful completion of each step, as well as supporting materials to provide users the resources they need. Click on any step of the PBL process below to navigate directly to that step:

Instant Access and Easy Navigation to any Major PBL Implementation Activity!

Select PSI

The PBL team identifies and selects potential candidates to act as the

ID: 29844

Comprehensive Info, Graphics, and References for every Activity Step!

The Product Support Integrator (PSI) is an entity (i.e., individual, organization - public or private sector) charged with integrating all public and private support sources, defined within the scope of PBL agreements, to achieve the documented performance outcomes. The PM, while remaining accountable for system performance, effectively delegates responsibility for delivering warfighter outcomes to the PSI. In this relationship, and consistent with 'buying performance', the PSI has considerable flexibility and latitude in how the necessary support is provided, so long as the outcomes are accomplished. To learn about the scope of the PSI's responsibility, click here.

The Defense Acquisition Guidebook defines the PSI as "The program manager's responsibilities for oversight and management of the product support function are typically delegated to a 'Product Support Manager (PSM)' (an overarching term characterizing the various Service function titles, i.e. Assistant Program Manager for Logistics, System Support Manager, etc) who leads the development and implementation of the product support and Performance Based Logistics strategies, and ensures achievement of desired support outcomes during sustainment. *The Product Support Manager employs a Product Support Integrator (PSI), or a number of PSIs as appropriate, to achieve those outcomes. The PSI is an entity performing as a formally bound agent (e.g. contract, MOA, MOU) charged with integrating all sources of support, public and private, defined within the scope of the Performance Based Logistics agreements to achieve the documented outcomes.* The product support manager, while remaining accountable for system performance, effectively delegates responsibility for delivering warfighter outcomes to the PSI. In this relationship, and consistent with 'buying performance', the PSI has considerable flexibility and latitude in how the necessary support is provided, so long as the outcomes are accomplished." For more information on who should play the role of PSI, see Who is the PSI?

The below graphic illustrates the traditional or "vertical" PSI arrangement where the PSI manages and integrates logistics elements support functions. For more information on alternative PSI arrangements, click here.

Output:

The output of this step is the selection of the PSI, who will be responsible for integrating the various sources of support, participating in the identification of best value and best capability workload sourcing decisions, managing performance outcomes, and producing warfighter operational effectiveness by ensuring a continuously available, repsonsive, reliable, and

EXPLORER ACC HOME
PBL Toolkit
PBL 12-Step Process Model
Integrate Requirements & Support
Form PBL Team
Baseline the System
Develop Performance Outcomes
Select PSI
Who is the PSI?
Scope of PSI Responsibility
PSI Alternative Management Strategies
Allocate Work
SCM Strategy
Establish PBA's
Business Case Analysis (BCA)
Award Contracts
Financial Enablers
Implement and Oversight
Library
Law
Step 1 - Integrate Rqmt & Supt References
Step 10 - Award Contract References
Step 11 - Financial Enablers References
Step 12 - Implement & Oversight References
Step 2 - Form PBL Team References
Step 3 - Baseline System References
Step 4 - Per Outcome Re
Step 5 - Sel Support Int References
Step 6 - Wo Allocation R
Step 7 - Supply Chain Mgmt References

acc ▸ workspaces ▸ pbl toolkit ▸ library ▸

Main View (344) | What's New (22) | View All (344)

Library

Library

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This page provides a listing of all references used in the PBL Toolkit. The following links provide shortcuts to references related to a specific PBL Toolkit topic.

Integrate Requirements & Support	Form PBL Team	Baseline System	Develop Performance Outcomes	Product Support Integrator
Workload Allocation Strategy	Supply Chain Management Strategy	Performance Based Agreements	Business Case Analysis	Award Contracts
Financial Enablers	Implement and Oversight	PBL Policy & Guidance	PBL FAQs	Statutory Requirements

Create a Blank Forum

Knowledge

1 | 2 | 3 | 4 | 5 | 6 | 7 ▶ ▶▶ Page 1 of 7

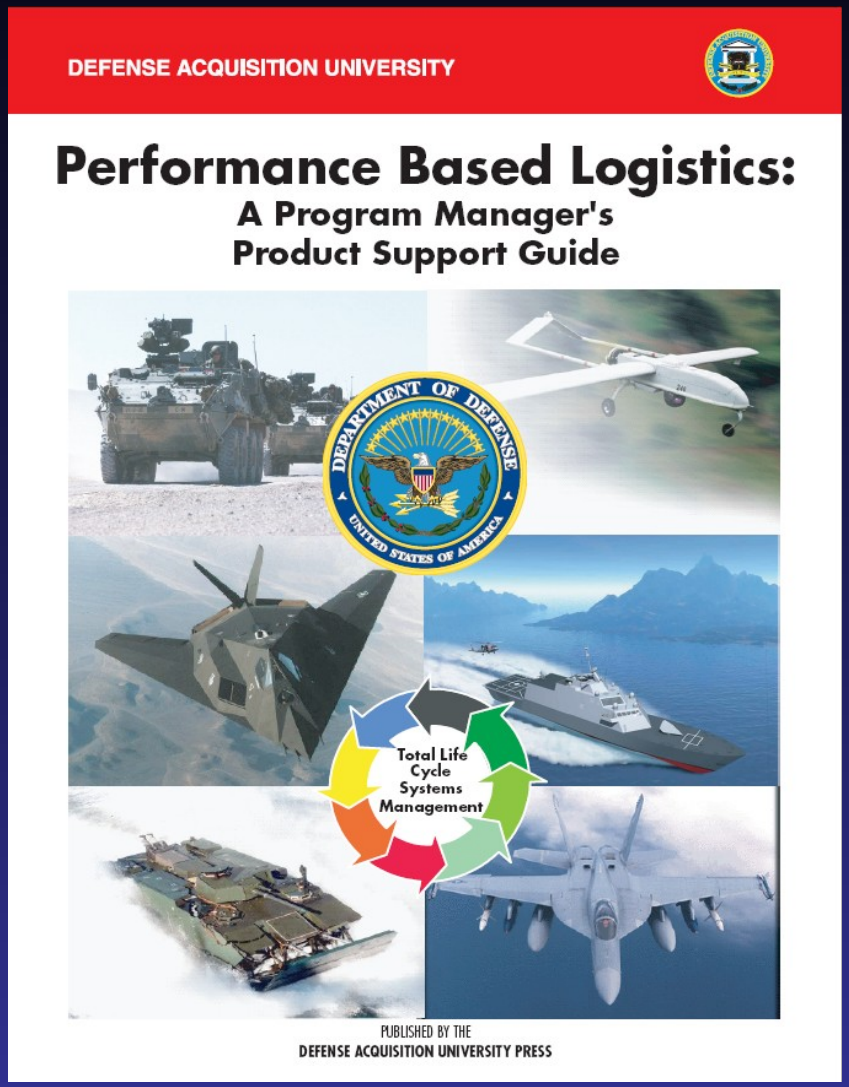
presentations

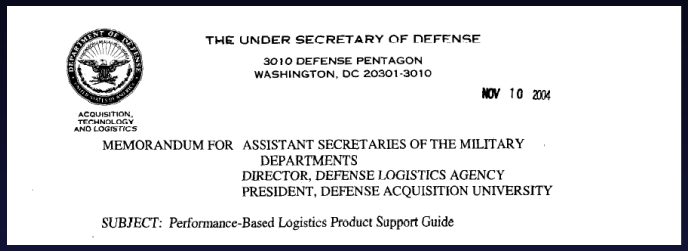
- 02-20-03 PBL BCA Workshop - Air Force BCA Implementation Brief (Viewed 2414 times)
- 02-20-03 PBL BCA Workshop - Army BCA Implementation Brief (Viewed 2121 times)
- 02-20-03 PBL BCA Workshop - Dept of the Navy BCA Implementation Brief (Viewed 2566 times)
- 02-20-03 PBL BCA Workshop - OSD Brief (Viewed 1929 times)
- 10-03-02 Buying Performance Workshop - Air Force Brief (Viewed 799 times)
- 10-03-02 Buying Performance Workshop - Army Brief (Viewed 1429 times)
- 10-03-02 Buying Performance Workshop - Industry Brief (Viewed 1206 times)
- 10-03-02 Buying Performance Workshop - NAVSUP Brief (Viewed 1316 times)
- 10-03-02 Buying Performance Workshop - OSD Brief (Viewed 1248 times)
- Acquiring Capabilities (Viewed 11 times)
- Army PBL Presentation (Viewed 5 times)
- AT&L Perspective on Joint Capabilities & Defense Cost Research Opportunities (Viewed 6 times)
- Balanced Scorecard Overview (Viewed 6 times)

Comprehensive References: accessible in each Activity, or in Master all-inclusive Library

- Deliver-Order Management (Viewed 9 times)
- Depot Maintenance Public-Private Partnerships (Viewed 15 times)
- Designing and Assessing Supportability (Viewed 11 times)

Product Support Guide





THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

ACQUISITION, TECHNOLOGY AND LOGISTICS

NOV 10 2004

MEMORANDUM FOR ASSISTANT SECRETARIES OF THE MILITARY DEPARTMENTS
DIRECTOR, DEFENSE LOGISTICS AGENCY
PRESIDENT, DEFENSE ACQUISITION UNIVERSITY

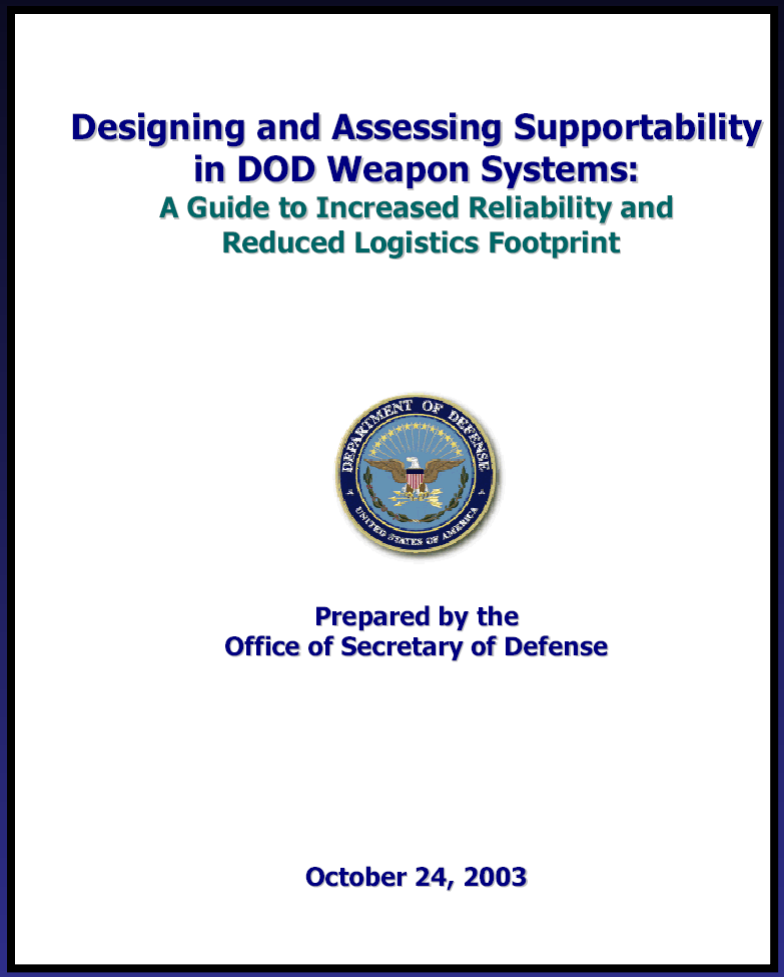
SUBJECT: Performance-Based Logistics Product Support Guide

USD/ATL Memo of 10 Nov 04

- Supersedes 'Product Support: A Program Manager's Guide to Buying Performance' (Nov 2001)
- Commonly known as "The PBL Guide"
- Captures the progress that has been made in implementing PBL over the past three years
- Presents up-to-date guidance based on the lessons learned from the application of PBL to support activities throughout the Armed Services.

http://acc.dau.mil/simplify/ev.php?ID=61016_201&ID2=DO_TOPIC

Comprehensive Guidance on Designing in Supportability


Designing and Assessing Supportability
in DOD Weapon Systems:
A Guide to Increased Reliability and
Reduced Logistics Footprint
Prepared by the
Office of Secretary of Defense
October 24, 2003

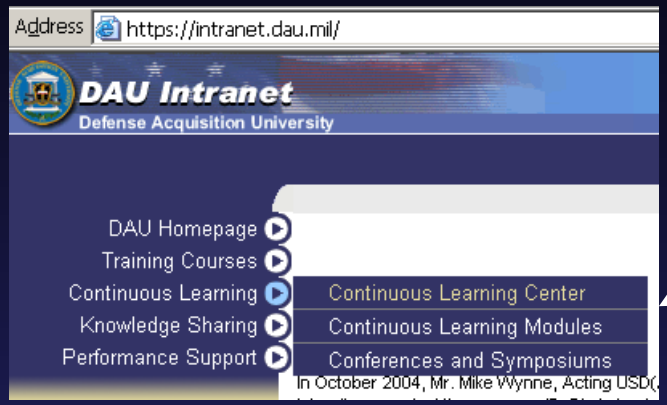
USD/ATL Memo of 24 Oct 03

- PM to guidance to effectively implement TLCSM and PBL
- Incorporates System Design for Operational Effectiveness (SDOE) criteria into the systems engineering process to:
  - ***Increase Reliability***
  - ***Reduce Logistics Footprint***
- Evaluation Criteria for all Milestones
- Establishes IOC and Post IOC Reviews
- Provides template for defining and

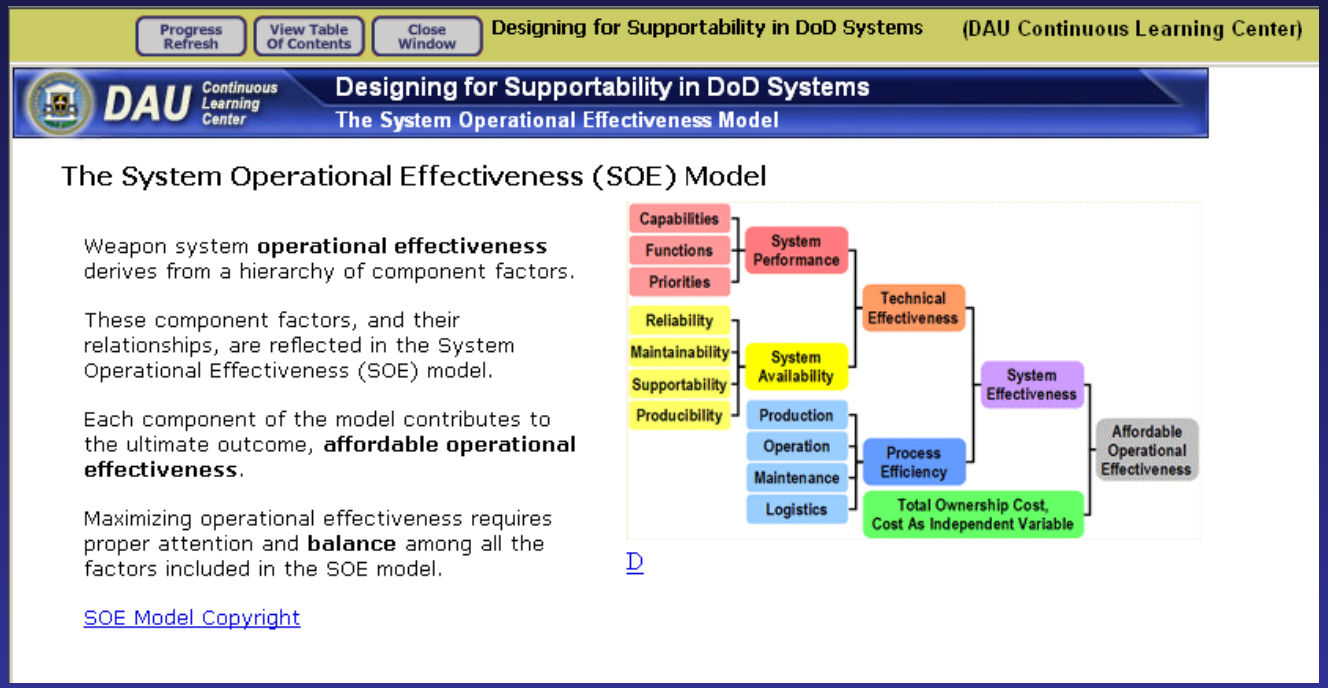
p://www.acq.osd.mil/log/logistics_materiel_readiness
ganizations/lpp/html/new_lro.html

Supportability Planning is no longer deferred!

…Now Also Available as a Continuous Learning Module!



- go to: https://intranet.dau.mil/
- select Continuous Learning Modules


Progress Refresh
View Table Of Contents
Close Window
Designing for Supportability in DoD Systems (DAU Continuous Learning Center)
DAU Continuous Learning Center
Designing for Supportability in DoD Systems
The System Operational Effectiveness Model
The System Operational Effectiveness (SOE) Model
Weapon system operational effectiveness derives from a hierarchy of component factors.
These component factors, and their relationships, are reflected in the System Operational Effectiveness (SOE) model.
Each component of the model contributes to the ultimate outcome, affordable operational effectiveness.
Maximizing operational effectiveness requires proper attention and balance among all the factors included in the SOE model.
SOE Model Copyright
Capabilities
Functions
Priorities
System Performance
Reliability
Maintainability
Supportability
Producibility
System Availability
Technical Effectiveness
Production
Operation
Maintenance
Logistics
Process Efficiency
Total Ownership Cost, Cost As Independent Variable
System Effectiveness
Affordable Operational Effectiveness
D

CLL008 Designing for Supportability in DoD Systems

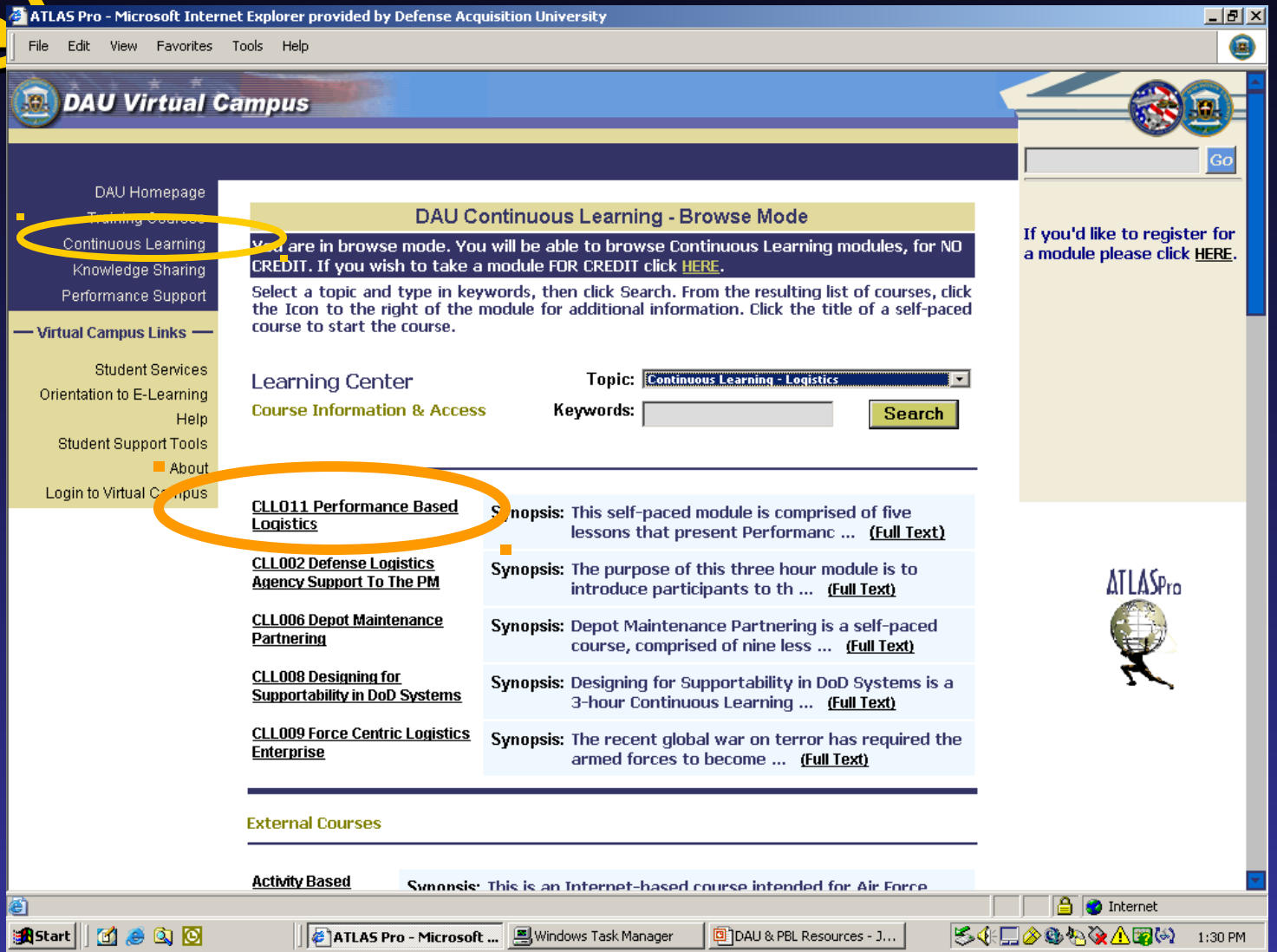
LOG 235
Performance Based Logistics

LOG235A
- 50 Student Hours: DL
- 60 days to Complete
- Web-Interactive

LOG235B
- 4.5 Day Resident
- Case-Based & Practical
- Exercise

Subjects
- PBL Tools and Processes
- Supply Chain Management
- Business Case Analysis
- Reliability, Maintainability, Supportability
- Enterprise Integration
- Support options
- Continuous Modernization
- Commercial Integration
- Configuration Management

PBL Continuous Learning Module (on-line)


ATLAS Pro - Microsoft Internet Explorer provided by Defense Acquisition University
File Edit View Favorites Tools Help
DAU Virtual Campus
Go
DAU Homepage
Continuous Learning
Knowledge Sharing
Performance Support
Virtual Campus Links
Student Services
Orientation to E-Learning
Help
Student Support Tools
About
Login to Virtual Campus
DAU Continuous Learning - Browse Mode
You are in browse mode. You will be able to browse Continuous Learning modules, for NO CREDIT. If you wish to take a module FOR CREDIT click HERE.
Select a topic and type in keywords, then click Search. From the resulting list of courses, click the Icon to the right of the module for additional information. Click the title of a self-paced course to start the course.
If you'd like to register for a module please click HERE.
Learning Center
Course Information & Access
Topic: Continuous Learning - Logistics
Keywords:
Search
CLL011 Performance Based Logistics
Synopsis: This self-paced module is comprised of five lessons that present Performanc ... (Full Text)
CLL002 Defense Logistics Agency Support To The PM
Synopsis: The purpose of this three hour module is to introduce participants to th ... (Full Text)
CLL006 Depot Maintenance Partnering
Synopsis: Depot Maintenance Partnering is a self-paced course, comprised of nine less ... (Full Text)
CLL008 Designing for Supportability in DoD Systems
Synopsis: Designing for Supportability in DoD Systems is a 3-hour Continuous Learning ... (Full Text)
CLL009 Force Centric Logistics Enterprise
Synopsis: The recent global war on terror has required the armed forces to become ... (Full Text)
ATLASPro
External Courses
Activity Based
Synopsis: This is an Internet-based course intended for Air Force
Internet
Start
ATLAS Pro - Microsoft ...
Windows Task Manager
DAU & PBL Resources - J...
1:30 PM